Lee County Board Of County Commissioners Agenda Item Summary Blue Sheet No. 20070471

1. ACTION REQUESTED/PURPOSE: Approve and authorize the Chairman to sign a Construction Agreement with Crowder Construction Company providing for the construction of the Water Treatment Plant Expansion to be performed as part of the WTE expansion project. Total Contract amount is \$1,699,650.00 and is within the total WTE project budget.

2. FUNDING SOURCE: Solid Waste Capital Improvement Fund - CIP Program - WTE Expansion Project.

3. WHAT ACTION ACCOMPLISHES: Provides a contractor to construct an expansion to the Water Treatment Plant as part of the WTE Expansion Project.

4. MANAGEMENT RECOMMENDATION: Approve

5. Depa	rtmental C	ятедогу Х					
				<u> </u>		6. Meeting Da	ate: April 10, 2007
7. Agen	da:	8.	Requiren	nent/Purpos	e: (specify)	9. Request In	itiated:
X Cor	nsent		Sta	itute		Commissione	r
Adı	ministrative		Or	dinance		Department	Public Works
Арј	peals		X Ad	min. Code	AC 4-4	Division	Solid Waste
Pub	olic		Ot	her		By:	day Langer
Wa	lk-On	:					lsey J. Sampson
0. Back	ground:						
The Solid Waste Division has had design documents prepared for the Water Treatment Plant separately from the overall WTE expansion project in order to expedite design and construction activities. The County's Design Engineer, Burns & Roe, issued these plans and specifications as a bid solicitation on behalf of the County. On the bid date, Burns & Roe received two bids from pre-qualified contractors. The low priced bid was submitted by Crowder Construction Company. Crowder Construction Company is the company that performed the construction of the WTE air pollution control equipment, including the scrubber, bag-house, and induced draft fan. The expanded water treatment plant will allow the WTE facility to recycle more waste water internally thus reducing the demand for potable water. Funds are available in Account: 200092340102.506540 Attachments: Draft Contract							
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12. Commission Action: Approved Deferred Denied Other	RECEIVED BY COUNTY ADMIN: FW 3/ 1:48 MP 227 COUNTY ADMIN FORWARDED TO	Rec. by CoAtty Dat36707 Time: 20 Am
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CONTRACT

BETWEEN

LEE COUNTY, FLORIDA

AND

CROWDER CONSTRUCTION

FOR

SUPPLY AND CONSTRUCTION SERVICES

For

Installation of the Water Treatment System

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"DRAFT CONTRACT" **EXHIBITS**

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Exhibits, Attachments, and Schedules attached and incorporated by reference.

А. General Construction Requirements

| B. Design - Plans and Specifications Technical Specification 2661-SM101B "MSW Steam Generator"

C. Payment Procedures (later)

D. Project Schedule (later)

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CONTRACT

(hereinafter "Contractor" which shall also include its contractors and vendors on any tier). The Exhibits referenced herein and attached hereto are an integral part of this Contract.

RECITALS:

County owns a municipal waste-to-energy power facility located at Buckingham Road in the County (the "Existing Facility"), which is operated and maintained by Covanta Lee, Inc. ("Covanta"), and desires to expand the Existing Facility. In connection with the expansion, County desires to engage Contractor to provide equipment, materials, construction and other services as hereinafter defined and Contractor, representing it is fully capable and prepared to do so, desires to provide such services.

Therefore, in consideration of the premises, undertakings, promises, covenants and conditions contained herein, the sufficiency of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1

DEFINITIONS

The following definitions are of certain terms used in this Contract. All other terms shall have the meanings given by their use in the text. The words "include" or "including" shall be deemed to be followed by the phrase "without limitation", except where the context would not warrant.

1.1 Acceptance Testing

"Acceptance Testing" means the testing activities performed on the Project to determine_± in accordance with this Contract, whether Contractor has properly supplied, equipped, installed, erected, assembled, constructed and mechanically and functionally checked and tested its Work.

1.2 Affiliate Company

"Affiliate Company" means a corporation or other business entity directly or indirectly controlled by, controlling or under common control of a Party.

1.3 Applicable Law

"Applicable Law" means any law, ordinance, rule, regulation, code, requirement, permit, judgment or order of any federal, state or local agency, court or other governmental body or entity having jurisdiction over the Work or the Parties and includes the permits, licenses and governmental approvals applicable to the acquisition, design, construction, equipping, start-up, testing, financing, ownership, possession or operation of the Project or the performance of any obligations under this Contract.

1.4 Change Order

"Change Order" means the method, procedure and document by which this Contract, its terms, conditions, Exhibits, schedules and text may be modified, adjusted or amended in accordance with and as defined and described in Article 7. Valid Change Orders shall form a part of this Contract and shall be governed by, and be enforceable in accordance with, the terms hereof unless specifically provided otherwise in the Change Order.

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1.5 Consulting Engineer

"Consulting Engineer" means the firm(s) retained by County to review and monitor the content, quality, progress of the Project and such other activities as may be entrusted to it.

1.6 Contract

"Contract" means this principal document, the Exhibits, schedules, amendments, and Change Orders.

1.7 Contract Price

"Contract Price" shall mean the fixed remuneration to be paid to Contractor for its satisfactory performance, including any adjustments made by Change Order.

1.8 County Contractor(s)

"County Contractor(s)" shall mean those contractors and suppliers (other than the Contractor) with whom County contracts separately.

1.9 <u>Covanta</u>

"Covanta" shall mean Covanta Lee, Inc., the firm that operates and maintains the Existing Facility and the firm that the County has contracted, or intends to contract for (a) services to oversee the design of the Project, (b) services to manage the construction and equipment supply of the Project, and (c) upon completion of the design and construction, to start-up, test, operate and maintain the Project.

1.10 Design

"Design" means the collection of technical and non-technical information, design parameters, design standards, plans, specifications, drawings, documents, environmental and other permits and such other information provided or to be provided by County to Contractor including, but not necessarily limited to the Exhibits to this Contract, which information is intended to generally describe the Work, Project, Existing Facility, Site, Schedule requirements and the supply and construction activities to be performed by Contractor.

1.11 Engineer

"Engineer" means Burns & Roe Enterprises, Inc., the firm County has contracted with to provide the detailed design and engineering for the Project.

1.12 "Equal", "or Equal" or "Equivalent"

Whenever materials, products or equipment are designated by manufacturer's or vendor's names, trade names, catalog numbers, etc., such designation is intended to establish a standard. When such designation is modified by the words "equal", "or equal", or "equivalent", other materials, products or equipment which meet the established standard may be used, provided that their equivalency has been demonstrated by the Contractor to the satisfaction of County and written consent for their substitution has been obtained from County.

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1.13 Existing Facility

"Existing Facility" has the meaning given that term in the Recitals.

1.14 Force Majeure

"Force Majeure" shall have the meaning given in Article 11.4.

1.15 Notice

"Notice" means formal written noti ce given in accordance with Section 11.11.

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1.16 Notice to Proceed

"Notice to Proceed" means the formal written direction from County to Contractor to commence the Work on the Project.

1.17 Party or Parties

"Party or Parties" means County and Contractor or one of them as the context requires.

1.18 Product

"Product" means all design, deliverables, materials, equipment, systems, machinery, supplies, documentation, testing procedures, and other items related to or to be incorporated into the Work.

1.19 Project

"Project" means the Product, Work and a third total mass-burn solid waste resource recovery unit to be constructed for the County and integrated into the Existing Facility, including enhancements to the Existing Facility, all as described in the Exhibits and includes the whole of the Work undertaken to be performed by the Contractor pursuant to this Contract. The Project includes the facilities and equipment off the Site, if any, for which the Contractor is responsible as per the Exhibits.

1.20 Project Schedule

"Project Schedule" or "Master Project Schedule" mean the time schedule of the Project as further described in the Exhibits.

1.21 <u>Schedule</u>

"Schedule" means the time schedule of the Work as further described in the Exhibits.

1.22 <u>Site (or Jobsite)</u>

"Site" or "Jobsite" means the area on which the Project is to be located and/or Contractor's area of responsibility as more particularly described in the Exhibits.

1.23 Subcontractor

"Subcontractor" means any person or entity, such as Subcontractors, or supplies of any tier, under contract with the Contractor to provide any part of the Work, including any Product.

1.2<u>4</u>3 <u>Work</u>

"Work" means the whole of the undertakings to be performed by the Contractor pursuant to this Contract as described in the Exhibits, including without limitation procurement, equipping, assembly, installation, erection, construction, and testing services. Contractor shall continually furnish as required all administration, supervision, management, consultations, Product, equipment, materials, supplies, labor, construction tools and equipment, chemicals, lubricants and other consumables (other than those for the continuous operation of the Project), temporary and permanent utilities, storage, temporary buildings and facilities, transportation including, without limitation, hauling, unloading and handling at, to and from the place(s) of Work, all in order for the Project to be complete, operable, and ready for safe and reliable sustained commercial operation in accordance with this Contract.

END OF ARTICLE

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<u>"DRAFT_CONTRACT"</u> ARTICLE 2

CONTRACTOR OBLIGATIONS

2.1 <u>General</u>

2.1.1 Contractor shall supply and provide all equipment, materials, management, supervision, labor, construction, testing, utilities, construction tools and equipment, supplies, consumables, temporary structures and facilities, and all transport and handling necessary to complete the Work and perform the Contract in its entirety.

2.1.2 Contractor has represented and herein confirms that it is experienced in the supply and construction of the Project or of similar facilities, understands and has estimated the cost of its labor, materials and equipment, and the time required to complete the Work. Contractor understands and accepts the full risks of costs and schedule and agrees that it will make no claims for additional compensation or extension of time except as specifically allowed by the terms of this Contract. Except for bonafide additions to the Work by Change Orders made in accordance with Article 7, no requests or claims for any other increase in the Contract Price based upon mistake, constructive change, delay, acceleration or force majeure shall be allowed.

2.1.3 The several documents forming the Contract shall be taken as mutually explanatory of one another. In the event of any conflict, variation or inconsistency between any provision of the body of this Contract and any provision of any Exhibit, the provisions of the body of this Contract shall control. Anything shown in the Design and not specifically shown in any proposal drawings, or vice versa, shall be of like effect as if shown in both. Anything shown or mentioned in the Design documents or other related or pertinent written documentation and not shown on drawings or plans but not mentioned in the Design or other related or pertinent written documentation and not shown on drawings and the Design, the Design shall prevail. Contractor acknowledges that it is fully familiar with this Contract, including the requirements in the Exhibits. It shall be Contractor's responsibility to notify County and Covanta, without delay, of any material errors, omissions or discrepancies that Contractor exercising reasonable diligence may discover. Contractor shall not be relieved of any of its obligations or liabilities for failure to discover such errors or omissions. Ambiguities, discrepancies or inconsistencies shall be adjusted by County who shall issue Contractor instructions with respect thereto.

2.2 Purchases

Except for purchases to be made by County as set forth in the Exhibits, Contractor shall procure all necessary equipment and materials and be responsible for the quality and adequacy and performance of, and making timely and full payment for all such Contractor purchased materials and equipment.

2.3 <u>Construction</u>

Contractor shall deliver, assemble and install the equipment, and complete the Work. Contractor's construction obligations shall include the management and coordination of all construction activities including, health and safety, construction equipment and tools, consumables, supervision, labor, deliveries, handing, storage, installation, and testing. Contractor shall provide and maintain appropriate protection and storage for all equipment and materials, including any equipment and materials supplied to Contractor by County, all temporary construction aids on the Site and for the removal and proper disposal of all excess soil, gravel or other unusable materials.

2.4 Coordination and Cooperation

2.4.1 Included in the management of its Work on the Project, Contractor shall be responsible for coordinating the activities of all of its subcontractorSubcontractors and suppliers, including, but not limited to, <u>ssubcontractorLubcontractors</u> and suppliers assigned to Contractor by County, if any. Contractor shall be knowledgeable of the plans, schedules and activities of all contractors and suppliers; monitor and review progress, and safety practices to assure conformance to OSHA, Contractor's and Covanta's safety program; conduct periodic on-Site coordination meetings with all participants, keeping minutes and records thereof, copies of which shall be furnished to Covanta and County; provide consultation and advice on maintaining maximum labor productivity; develop and implement strategies to maintain (or possibly shorten) Contractor's Schedule and/or the Project Schedule.

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2.4.2 Contractor shall cooperate with the County, Covanta, and other County Contractors, to ensure that the Work is properly performed on schedule. Contractor shall collaborate with Covanta and any other County Contractors and coordinate its Work with the work of such other County Contractor(s), which could affect Contractor's Work, and Contractor shall proceed in such manner as not to interfere or delay the progress of the Project as a whole.

2.4.3 If any part of the Contractor's Work depends for proper execution or results upon the work of any other County Contractor(s), the Contractor shall inspect and promptly report in writing to the County and Covanta any defects in the work of such other contractor that renders it unsuitable for such proper execution or results. Failure of the Contractor to do so shall constitute its acceptance of the other County Contractors' work as fit and proper for the execution of Contractor's Work, except as to defects that may develop in the other County Contractors' work after the execution of the Contractor's Work.

2.4.4 In cases of disagreement or disputes between the Contractor and other County Contractor(s) which could delay or interfere with Contractor's Work due to the failure to collaborate and cooperate or which cannot be resolved between Contractor and the others involved, the County and Covanta shall be given prompt written notice specifying in detail the disagreement or dispute. In such cases, the County shall have the right to determine the proper method of coordinating the Contractor's Work, and the County's decisions in this regard shall be final, binding, and conclusive.

2.4.5 The Contractor shall provide an on-site representative duly authorized to act for and on behalf of the Contractor and to commit to decisions that shall be binding on the Contractor. If requested, said representative shall attend meetings which may be called by the County. Notwithstanding the existence of a dispute or disagreement between the County and the Contractor, the Contractor shall diligently and without interruption proceed with its Work at such rates of progress as will ensure full completion of its Work on time.

2.4.6 County or Covanta shall have the right to perform work with its own employees or by other contractors and to permit other entities to do work during the progress and within the limits of, or adjacent to, the Work site, and the Contractor shall conduct its Work and cooperate with all others so as to mitigate any possible interference. The Contractor shall allow other contractors, including County Contractors, or other entities access to their work within the Work site. The Contractor shall make no claims against County for additional payment due to delays or other conditions created by the operations of such other parties.

2.4.7 Contractor acknowledges that (a) its rights and remedies under this Contract can be enforced only against the County and (b) under no circumstances shall Contractor be permitted to pursue any rights or remedies against Covanta.

2.5 Site Conditions

2.5.1 Contractor represents that it has investigated and knows the nature and scope of the Project, the location and peculiarities of the Site, and Contractor's particular area of activity, including accessibility, the type and magnitude of the labor, the character and quantity of equipment, tools, materials and facilities required, the Product and the general and local conditions and matters which could affect its Work, including Contractor's activities yielding priority to the continuous activities of others supporting the critical operation and maintenance of the Existing Facility. Contractor represents that it has reviewed the geotechnical and other information made available to it by County or otherwise generally available to Contractor regarding the soil, topography, underground and groundwater conditions as well as such other conditions that might affect the progress and cost of its Work, has satisfied itself as to those conditions and accepts the risks associated therewith. Contractor's failure to become knowledgeable about or to discover material matters which affect its Work or the Project shall not relieve Contractor from its obligations under this Contract.

2.5.2 Contractor shall check against the Design documents all existing dimensions of consequence to its Work prior to any performance of such related Work, including points of interface with the Existing Facility, work of other County Contractors, or equipment supplied to Contractor by County. Contractor shall be responsible for any errors which can be discovered by examination or checking of the Design documents, and the Contractor shall be responsible for the joining and fitting of all parts of the Work, and any checking or inspection by the County or its representatives shall not relieve Contractor of any responsibility as to the correctness of any work.

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2.6 Care, Custody and Control

Contractor shall be entrusted with the care, custody and control of the Product and of the Work in progress, including any information and data, equipment, materials and supplies furnished by County, Covanta and County Contractors and delivered to Contractor, and of the Product. Contractor shall provide for any proper storage, care, security and protection (particularly protection from damage or loss due to inclement weather) and shall be responsible for any loss or damage while in its care. County may take temporary custody of and use partially completed parts of the Project. Such temporary custody shall not be deemed an acknowledgment of Completion or Acceptance.

2.7 Document Deliverables

In a timely manner before the Work is complete, Contractor shall, provide copies of project equipment data books, operation and maintenance instruction manuals, document and drawing indexes, control keys, computer programs and access codes, computer disks and the like for Contractor-supplied equipment containing the information necessary to enable Covanta to properly start-up, operate and maintain the Project in accordance with generally accepted standards of practice in the industry and Applicable Law, including environmental, safety and other governmental standards, guidelines and regulations. Such data books, manuals and programs shall include the procedures for start-up, shutdown, emergency operation, maintenance schedules and procedure, and other related information. Before Acceptance, Contractor shall also provide Covanta and the County with copies of all warranties relating to equipment and systems installed by Contractor, recommended spare parts lists for all Product, vendor's prints, manufacturers' equipment descriptions, specific information on each component of the Product, Computer Aided Design and Drafting (CADD) work products (including disks and electronic data records) and a complete set of "as-built" reproducible record drawings incorporating and reflecting all changes.

2.8 Subcontractors

2.8.1 Contractor shall not be permitted to subcontract the whole of its Work. Contractor may subcontract portions thereof, provided that the Contractor shall remain responsible and liable to County for any Work so subcontracted. No privity of contract shall be created between County and any subcontractor<u>Subcontractor</u> or supplier. Should such parties institute a claim or commence a suit directly against County, Contractor shall defend, indemnify and pay any expenses incurred by County including attorney's fees to the fullest extent permitted by law. The Contractor shall assure that contracts with its contractors or suppliers are assignable to County and contain warranties and remedies for default at least to the extent that Contractor is so bound. At regular intervals, Contractor shall review with Covanta and County each such subcontractor<u>Subcontractor</u>s or supplier's progress and performance.

2.8.2 The Contractor shall select major subcontractor<u>Subcontractors</u> and suppliers from a list of acceptable subcontractor<u>Subcontractors</u> and suppliers submitted to County. Reviews or approvals by County of subcontracts, subcontractor<u>Subcontractors</u> or vendors shall be made as promptly as possible. Such reviews shall not and will not create any contractual relationship between County and any <u>subcontractor<u>Subcontractor</u> or supplier, relieve Contractor of any of its obligations under the Contract or constitute a representation by County that a <u>subcontractor<u>Subcontractor</u> or supplier is qualified.</u></u>

2.8.3 No privity of contract shall be created by virtue of this Contract between County and any subcontractor<u>Subcontractor</u> or supplier.

2.9 Labor Relations/Host Community

To the extent that it is practicable and consistent with the efficient performance of this Contract, labor and other services employed at the Site shall be obtained from the community hosting the Project or otherwise available in the vicinity. Although the Contractor reserves the right of hiring, discharging and designating the classification of work for each employee or of shop or field fabrication of material in accordance with its best judgment, Contractor shall take responsible care in its selection of the work force, contractors, Product and procedures to maximize productivity and to avoid slow-downs, work stoppages or other disruptive concerted action.

2.10 Reporting

Employing the reporting procedure and format set forth in the Exhibits, Contractor shall submit monthly progress reports certifying progress including percentages of equipment purchased, on site or installed, milestones reached, manpower, significant events which occurred during the month, Work to be performed and milestones to be achieved during the coming month, documents and updates relating to Schedule and minutes of meetings with subcontracter<u>Subcontractors</u> and suppliers. Information from these reports shall be used to determine progress for payment purposes. In addition, Contractor's Project Manager, Construction Superintendent (and when appropriate,

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Start-up Coordinator) shall meet regularly with County and Covanta to review progress, discuss the reports and resolve any problems.

2.11 Approvals, Permits and Licenses

Except as specifically designated or obtained by others, Contractor at its expense shall obtain and maintain all registrations, permits, licenses and approvals necessary for the Contractor to fulfill its obligations under the Contract. Contractor and its <u>subcontractorSubcontractors</u> shall submit evidence to County of valid licenses or permits to operate in the jurisdiction of the Project and post them as may be required.

2.12 Safety, Health and Cleanliness at Site

2.12.1 County requires Contractor to place the greatest importance and highest priority on safety and health during performance. Contractor shall be responsible for initiating, maintaining and supervising all safety measures and programs, including the conduct of regular safety meetings with employees, all contractors and subcontractor<u>Subcontractors</u>, and shall take all necessary measures to ensure that all contractors, subcontractor<u>Subcontractors</u> and suppliers provide and maintain a safe working environment, properly protecting all persons on and in proximity of the Site from risk of injury and danger to health and all property from damage or loss.

2.12.2 Before starting Work on the Site, Contractor shall prominently post and disseminate safety, fire and other health regulations in compliance with Applicable Law, Covanta's health and safety rules and its own safety rules and requirements, which are attached as part of <u>Exhibit G</u>. Contractor shall ensure that its employees and employees of all contractors and subcontractor<u>Subcontractors</u>, at the commencement and throughout their employment at the Site, are kept aware of all safety and health regulations and are informed that full compliance therewith is a condition of their continued employment on the Project.

2.12.3 Contractor shall ensure that construction tools and equipment, materials, temporary facilities and other items, whether purchased, rented, or otherwise provided by Contractor and its <u>subcontractorSubcontractors</u> are in a safe condition and capable of performing their function. The use of lead paint and asbestos is always prohibited.

2.12.4 Contractor shall take all precautions necessary for the safety of the Project or any component thereof, and for the security of the Site by providing and maintaining protective fencing, lights, guards, warning and informational signs, temporary passages and roadways or other safety aids and protections appropriate to such purposes in full compliance with proper construction practices, OSHA and other Applicable Law regarding the maintenance of a safe work place.

2.12.5 Contractor shall at all time keep its Work areas, including applicable adjoining premises, driveways and streets safe and clear of snow, ice, mud, construction materials and rubbish. Promptly upon Completion, Contractor shall remove all of its remaining materials and rubbish from and about the premises, leaving the area safe, clean and ready for use. Contractor shall dispose of all waste materials and rubbish in accordance with Applicable Law. If Contractor is notified to clean up and remove its construction debris, or the use of unsafe tools or equipment, and fails to correct the matter within two (2) business days, County shall have the right to correct the matter and deduct the costs from any amounts (including retainage) that may be due Contractor.

2.12.6 Contractor shall not permit a hazardous, unsafe, unhealthful or environmentally unsound practice, procedure condition and/or activity to exist or be conducted at the Site. As soon as Contractor becomes aware of any such unsound practices, procedures, and/or conditions for which it is not the cause, it shall promptly notify County and Covanta and other affected entities or individuals and take immediate steps to eliminate, terminate, abate or rectify the practice, procedure or condition. Contractor shall have general sup ervisory authority over its Work area, including the power and duty to correct safety and health violations or require their correction.

2.12.7 Contractor shall promptly investigate and compile reports on accidents involving personal injury and property damage. Copies of such reports shall be furnished to County and Covanta's Project Manager or his designee as soon as possible after each accident.

2.12.8 Failure of Contractor or any of its subcontractor<u>Subcontractor</u>s or any of its or their employees to fully observe and comply with this Article shall be cause for termination.

2.13 Contractor Personnel

2.13.1 The assignment by Contractor of qualified, experienced management, technical, supervisory personnel, and skilled labor is of critical importance to the successful accomplishment of the Project. Contractor warrants that it has JEK\PMC\Contracts.93 7

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the experience and capability, including sufficient competent technical, supervisory and other personnel, and shall continually furnish such personnel and expertise until performance is completed. Contractor employees shall be (i) trained, skilled, competent and qualified for the tasks for which they are hired; (ii) able to recognize the hazards associated with the work being performed; (iii) knowledgeable regarding procedures to control or minimize such hazards; and (iv) instructed to abide by all County, Covanta and OSHA requirements and other requirements imposed by Applicable Laws. Whenever Contractor has reason to believe that an employee (including a subcontractorSubcontractor's employee) lacks the skill or understanding to comply with such requirements, contractor shall replace or retrain such employee so that all employees on the Site are proficient in all such requirements.

2.13.2 Contractor shall appoint as "Project Sponsor" a senior level corporate officer who shall have overall home office or headquarters responsibility for Contractor's performance and be responsible for corporate management appraisal and monitoring of progress and performance. Communications received by the Project Sponsor shall be deemed to have been received by Contractor.

2.13.3 Contractor shall appoint a Project Manager and a Construction Superintendent, the latter to be located on-Site. Communications received by either of them shall be deemed to have been received by Contractor. In order to ensure continuity, Contractor's Project Manager, Superintendent and other key personnel shall not without the prior approval of County, be temporarily or permanently reassigned or given supplementary work assignments which may interfere with their responsibilities under this Contract.

2.13.4 Contractor shall provide the services of labor relations and safety professionals with suitable qualifications and expertise.

2.13.5 Contractor shall appoint a testing coordinator knowledgeable in commissioning practices. This coordinator shall be available at the commencement of <u>Exhibit L</u> activities.

2.13.6 Contractor shall maintain discipline, harmony, good order and productivity of its personnel and staff. At the request of County or on its own initiative, Contractor shall remove or arrange the removal from the Site of any personnel who do not meet reasonable standards of experience, competency or comportment, or who otherwise are a detriment to the health and safety of the work place or the Project. Contractor shall ensure that such personnel remain uninvolved with any a spect of the Project.

2.14 Contractor's Equipment and Tools

Contractor shall be responsible for loss or damage to all of its or its <u>subcontractorSubcontractors</u>' equipment, materials, tools or other articles used, or held for use. Covanta and County shall have no responsibility or liability for such equipment and tools or other articles of Contractor or its <u>subcontractorSubcontractors</u>, under any circumstances, be considered a bailee of Contractor's or sub-contractors' construction equipment or tools.

2.15 Taxes and Contributions

2.15.1 Contractor shall pay when due all taxes, duties, and fees imposed under Applicable Law by reason of Contractor's performance including, but not limited to: excise, storage, consumption taxes; license and registration fees; income, profit, franchise, real and personal property taxes (but not taxes on the real or personal property of County, Covanta, the Project or Site); employment taxes and contributions imposed by Applicable Law or trade union contracts with respect to or measured by compensation (wages, salaries, benefits or other) paid to employees of Contractor, including but not limited to taxes and contributions for unemployment compensation insurance, retirement benefits, health and welfare funds, training, pensions and annuities, and disability funds and insurances. Contractor, at its cost, shall defend, indemnify and hold County, Covanta, and its Affiliate Companies from all liability resulting from Contractor's failure or the failure of its vendors or sub-contractors to make timely payment or comply with the reporting, filing or other procedural requirements under Applicable Law with respect to payments required hereunder.

2.15.2 In the event that the County has been or becomes exempted from any taxes otherwise payable, the Contractor shall be so instructed and an appropriate procedure for the handling and administration of such exemptions shall be developed and agreed by the Parties with the Contract amended as appropriate. If any of the material and equipment purchased by Contractor is eligible for exemption from any Sales and Use Tax, or an

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exemption from property or other relevant taxes exists as a matter of law, no such taxes shall be paid by Contractor without the prior written consent of County.

2.15.3 Contractor shall cooperate with County to secure and maintain any exemptions available to the Project or Existing Facility. In the event Contractor is assessed any taxes otherwise believed to be non-assessable, Contractor shall promptly notify County of the particulars and shall cooperate with County should County elect to protest any such assessment.

2.16 Inspection of Site and Project

2.16.1 County or Covanta shall have the right at all times to conduct routine and normal inspection of all workmanship and Product furnished under this Contract and shall have access at all times to the Project. Contractor shall provide County or Covanta reasonable facilities and time for the purpose of inspection prior to covering. When finished Work is taken down or Product furnished under this Contract is disassembled or uncovered for the purpose of inspection, Contractor shall pay all costs incurred thereby if such workmanship, equipment or material is found to be defective. County shall pay all costs incurred thereby in the event such equipment or material is found to be in accordance with this Contract.

2.16.2 Inspection of Work shall also include Product during its manufacture and, if requested, Contractor shall arrange for County representatives to visit the factories or other places of fabrication and assembly.

2.16.3 At reasonable times, County or Covanta may inspect the appropriate records of Contractor and its subcontractorSubcontractors to ascertain Contractor's and all other participants compliance with the safety and health requirements of this Contract or to confirm reported progress. However, neither the existence nor exercise of such right shall relieve Contractor of its responsibility for monitoring compliance with the safety and health requirements and for fulfilling all its other obligations.

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"DRAFT CONTRACT" ARTICLE 3

COMMENCEMENT, COMPLETION, TESTING, ACCEPTANCE AND DAMAGES

3.1 Time and Order of Work; Earlier Completion

To promote overall general progress, Contractor's activities shall be planned, commenced, prosecuted and 3.1.1 performed in a prompt, diligent manner, in sensible and agreed sequence or at such times and in such a manner that achieves the schedules for the completion of each of the various phases including checkout, testing and start-up. Equipment, construction aids, materials and labor to be furnished by Contractor shall be acquired and be available in sufficient time and quantity to enable Contractor to perform and complete the various phases within the planned times. Performance shall be without interruption and Contractor shall not reduce its resources without the approval of County.

If at any time in the reasonable opinion of County or Covanta, the Contractor's labor force, supervision or 3.1.2 procurement shall be or become inadequate for achieving the necessary schedule, order, progress or quality, the Contractor shall, on notice from County or Covanta, or on its own initiative, and at its own expense, increase or supplement these items to the extent required to restore lost sequence or progress and assure compliance with the schedule milestones and required quality. Failure of County or Covanta to make specific demands hereunder shall not relieve Contractor from, or operate as a waiver of, its obligations to maintain the required sequence and rate of progress.

The Contractor shall be responsible at all times for the efficiency and adequacy of the means, methods of 313 construction or performance, materials, work force and equipment, irrespective of whether it acts as a result of any direction of County or Covanta.

3.2 Notice To Proceed

Contractor shall commence its activities promptly upon receipt of a formal Notice To Proceed and shall perform the same with diligence in accordance with sound and generally accepted engineering and construction practices until all of its obligations pursuant to this Contract, including timely Completion, guarantees and warranties have been fulfilled.

3.3 Completion and Liquidated Damages

Timely performance is the essence of this Contract. Contractor shall complete the Work in accordance with 3.3.1 the Schedule and this Article 3. Completion shall mean and shall occur when the Contractor's Work, including procurement, construction, installation, and check out of all mechanical, electrical, instrumentation and control systems have been turned over complete, calibrated, tested and operable, thereby allowing start-up and continuous normal operation and use of the Project as intended by the design. Completion shall be demonstrated by a safe and successful start-up. Any delay in performance not excused under this Contract will result in substantial loss to County, subjecting Contractor to damages.

Contractor shall achieve Completion as defined in this Article no later than the agreed and stated number of 3.3.2 calendar days from Contractor's receipt of formal Notice to Proceed. Should Contractor be late, County will suffer considerable losses and be substantially damaged thereby, the extent to which Contractor's contribution will be difficult to quantify with any reasonable degree of precision, consequently, the Parties have agreed to quantify such damages in advance. Therefore, in the event Contractor fails to achieve Completion by August 31, 2007 within ****[later]****_days of the receipt of Notice To Proceed, Contractor agrees to pay County as liquidated damages (and not as a penalty nor subject to any proof of such loss) the sum of \$15,000 for each calendar day that Contractor is late. Such damages as are assessed may, at the option of County, be offset from any amounts (including retainage) that may be due Contractor or backcharged to Contractor.

Contractor shall complete all remaining Work on the Project in no later than 30 calendar days from 333 Contractor's receipt of Notice to Proceed, including final painting, resolution of all punch list items, removal of temporary facilities and construction aids, clean-up and demobilization from Site. In the event Contractor fails to complete the remainder of the Work in accordance herewith, Contractor agrees to pay County as additional agreed liquidated damages (and not as penalty) an amount equal to \$1,000 per calendar day for each calendar day that Contractor is late.

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334 Contractor recognizes the importance of not interfering, and shall not interfere, with the operation and maintenance of the Existing Facility during any phase of Contractor's Work. Should Contractor, or any of its subcontractorSubcontractors or other parties in Contractor's control, cause the Existing Facility's processing capacity to be interrupted or limited, by accidentally tripping the Existing Facility or for any other reason, without prior coordination and written agreement from Covanta, County will suffer considerable losses and be substantially damaged thereby, the extent to which Contractor's contribution will be difficult to quantify with any reasonable degree of precision, consequently, the Parties have agreed to quantify such damages in advance. Therefore, in the event Contractor causes the operating shutdown of either or both solid waste processing trains of the Existing Facility, Contractor agrees to pay County as liquidated damages (and not as a penalty nor subject to any proof of such loss) the sum of 1\$5,460-later-, for each occurrence that Contractor causes each processing train to shutdown, for each hour each train is prevented from processing solid waste as a result of each plus [\$646.00 latersuch occurrence. Such damages as are assessed may, at the option of County, be offset from any amounts (including retainage) that may be due Contractor or backcharged to Contractor.

3.4 Interim Checkout

Not Used

As equipment, systems, subsystems or other major components of the Project are completed, County or Covanta shall be permitted (but not required) to commence its own checkout and testing of such individual components. Contractor deficiencies revealed during this interim checkout period will be promptly corrected and made good by Contractor at its expense.

3.5 Phased Systems Turnover

Contractor agrees that to support an orderly phased start-up of the Project and avoid compression of such activity, Contractor agrees to turn over the various systems and subsystems of its Work in the order designated and sequenced by County or Covanta, or set forth in the Project Schedule and supporting CPM schedules, sufficiently in advance of the scheduled start-up activities. Contractor acknowledges that commissioning activities by County or Covanta may be carried on concurrently with ongoing Contractor activities provided they do not unduly interfere with Contractor.

3.6 Certificate of Occupancy

Contractor acknowledges that codes, statutes, ordinances may require a temporary or permanent certificate of use or occupancy or other similar approval in order to use or occupy the Project. If Contractor's actions or lack of progress precludes timely receipt of any such certificates, resulting in delays in start-up, commissioning or operating activities, delay damages and the cost of corrective actions to obtain the necessary permissions shall be to Contractor's account.

3.7 Acceptance of Work

Acceptance shall occur upon the fulfillment of all of the following conditions: (i) Completion and the other criteria specified in Article 3.3, have been satisfied and confirmed by initial performance testing of the Project, (ii) delivery of documentation in accordance with Article 2.7 and "As built" reproducible record drawings, final CADD work product, electronic data and instrument calibration records, document and drawing indexes, computer programs and access codes, control keys, non-destructive test and inspection records and reports, hydrostatic, air or other required test records, certified drawings, manuals, all warranties for Contractor-supplied equipment; (iii) Contractor's Affidavit of Payment, Waiver of Liens and General Release; (iv) receipt of a Certificate of use or Occupancy from the appropriate authority provided that any delay in the receipt is not dependent upon circumstances caused by or beyond the control of Contractor; (v) correction of all Contractor deficiencies which would preclude acceptance of the Project by the County or Covanta; (vi) receipt of any other documentation required by this Contract, (vii) general satisfactory compliance with the requirements of this Contract. Acceptance hereunder shall commence the warranty periods and the processing of final payment including retainage.

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"DRAFT CONTRACT" ARTICLE 4

CONTRACT PRICE

4.1 Contract Price

As full and complete compensation for Contractor's performance, County shall pay Contractor a fixed lump sum Contract Price of \$1,699,650. _00___, payable in accordance with the Payment Provisions of the Exhibits. The Contract Price shall not be subject to any escalation or increase except as specifically allowed, calculated and authorized by Change Order issued in accordance with this Contract.

4.2 Progress Payments

Notwithstanding any schedule of payment, all payments to Contractor, including Change Order payments, shall reflect and be subject to progress and equipment in place.

4.3 Invoicing

4.3.1 On a fixed date each month as shall be agreed, Contractor shall render its invoice with any required supporting documentation. This invoice shall constitute Contractor's certification as to progress, related amount, that all indebtedness incurred in connection with the Work to date has been or, in due course, will be paid on a timely basis and that to Contractor's knowledge and belief, there exist no claims, liens or other encumbrances with respect thereto. County shall review the invoice and the supporting documentation for contractual compliance, progress and accuracy, advise Contractor of any amount which it disapproves with the reasons therefor, adjust the funding, if necessary, for any under or overpayment and remit the approved amount of the invoice to Contractor. Payments shall not constitute acceptance or approval for any Work not properly performed or costs not properly incurred. County shall not pay for incomplete or defective Work.

In order to secure benefits that may be available to County under federal, state and local revenue codes, including state and local sales and use tax laws and regulations, or under any other public law, Contractor agrees to provide, if required, limited disclosure of costs for specified categories of services, labor, equipment, systems or materials. Any disclosure shall be minimized and limited so as to preserve as much as possible the fixed price nature of the Contract.

4.4 Retainage

In order to ensure compliance with this Contract, five percent (5%) of each payment shall be retained by County. This retainage will be remitted to Contractor promptly upon the satisfactory discharge of Contractor's obligations as set forth in Article 4.6.

Retainage for Punch List Items 4.5

Covanta and Contractor shall agree on the items requiring completion or correction by Contractor in order for Contractor to fully complete the Work and the cost of correcting or completing of each item. County shall be entitled to withhold a sum equal to twice the aggregate value of the items on the list. As Contractor corrects or satisfactorily completes an item, County shall pay to Contractor the value withheld corresponding to the item corrected or completed. In the event the amounts due Contractor are insufficient for this purpose, Contractor shall deposit with County an amount sufficient to make the sum to be held under this paragraph equal to twice the aggregate value of the items.

4.6 Final Payment

Upon Completion, including the receipt of all of the deliverables required by this Contract and County's Acceptance in accordance with Article 3, and after all adjustments and unsettled matters (including any liens or charges) have been disposed of, Contractor shall submit its final invoice for the unpaid balance of the Contract Price including Change Orders and retain ages. Contractor's final invoice shall be accompanied by: (i) Proof by affidavit satisfactory to County that there are no unsatisfied or uninsured claims or judgments for injuries to persons or damage to property and that no other indebtedness for which Contractor is responsible exists which is or may become, in the judgment of County, a detriment to County or a charge or an encumbrance on the Existing Facility or the Project or its premises; (ii) documents, statements of account, affidavits or other assurances which County may reasonably require to insure immunity from liens, claims, or charges against County, Covanta, Existing Facility or the Project or the funding thereof arising out of Contractor's performance for which County, or Covanta may become liable; (iii) general releases to JEK\PMC\Contracts.93 Revised for LEEX 12/230/04 12

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County, and Covanta from Contractor, acting for itself, its subcontractorSubcontractors and suppliers, discharging County, County's representatives, including Covanta and its Affiliate Companies, and the officers, directors, officials and employees of each from all liabilities, obligations and claims arising out of Contractor's performance of this Contract other than matters which Contractor is or in good faith is contesting or intends to contest against third parties. Provided the criteria set forth above are reasonably met, County shall pay Contractor the unpaid balance of the Contract Price including retainage.

4.7 Representation

Contractor represents that all documents including invoices, billings, waivers, certifications, releases, reports or other representations made or submitted by Contractor shall, to the best of Contractor's knowledge and belief, be complete and accurate, truly reflect the facts about the activities and transactions to which they pertain and contain no material misstatements or omissions and hold County and Covanta harmless from any material breach of such representations. Contractor understands that County and Covanta will have the right to and shall rely on those documents and reports as such. Contractor will place similar requirements upon its contractors and vendors. Acceptance of such reports and documents shall not constitute the agreement of County or Covanta with their contents.

4.8 Liens

Contractor shall promptly pay all indebtedness incurred in Contractor's performance. Contractor shall not have and hereby agrees to waive for itself and to the extent not proscribed by law, cause its contractors, suppliers and materialmen to waive any right to place a mechanics or materialmen's lien, trust (including the creation of a Lien Law Trust) or similar charge or encumbrance on the Existing Facility, the Project, the Project or Existing Facility premises or the Project funding, whether or not such liens, charges or encumbrances are founded upon common, local, state or national law. If such a lien or charge or any form of trust attaches or is created by any reason of failure by Contractor, its contractors or vendors to pay such indebtedness, or otherwise, Contractor shall promptly procure its release by bond, by payment or otherwise and shall hold County and Covanta harmless from any loss, damage and expense incidental thereto. If County reasonably believes a lien, charge or claim for which County might be or become liable or to which County's or Covanta's property might be or become subject and which is chargeable to Contractor, its contractors or vendors, County may retain out of any amounts due to Contractor an amount which in the judgment of County is reasonably sufficient to protect against such lien, claim or charge including attorney's fees and associated costs. County will retain said amounts until Contractor pays and discharges the lien, claim or charge or until County is satisfied that such lien, claim or charge is invalid. In that event County will promptly release the amount retained and remit the same to Contractor less any costs County is entitled to assess Contractor. If in County's judgment, such lien or claim is valid, County may pay and discharge the same and deduct the amount paid from the balance of the Contract Price due Contractor. If such a lien, claim charge, trust or other encumbrance remains unsatisfied after Completion and Acceptance of the Work, Contractor shall promptly refund to County all amounts paid by County in settling and discharging the same including the costs and reasonable attorneys' fees. Florida's Public Construction Statute, Section 255.05, Florida Statutes, is applicable to this Project. Contractor acknowledges that no lien rights are available against the public property and that no Notices to Owner shall be furnished to the County nor shall any liens be recorded against County's interest in the real property.

END OF ARTICLE

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GUARANTEES AND WARRANTIES

5.1 General Warranty

5.1.1 Contractor warrants that its performance shall in all aspects be in accordance with established industry codes and recognized professional standards; with the customary accuracy, care and skill expected of firms in the industrial construction business; shall comply with all applicable laws and regulations; shall conform to the requirements of this Contract; not violate any patent, copyright, or other proprietary interest; that workmanship, equipment and materials will be new, of the highest quality; and remain free from defects for a period of twenty four (24) months (or longer for components identified in the Exhibits as having extended warranties from Contractor's vendors such as roof, panels, siding, coatings, HVAC systems) following Acceptance. County and Covanta shall be beneficiaries of the warranties herein.

5.1.2 During the warranty period, Contractor shall at its cost and expense, including the cost of removal, transport, re-installation and testing, promptly correct, repair or replace any defective workmanship, equipment and materials upon being given notice thereof. The warranty period for the repair and/or replacement shall be twelve (12) months from the making good of any deficiency or the remaining balance of the twenty four (24) months required in Article 5.1.1, whichever is longer. In the case of defects in components with extended warranties, the one year shall be additive to the remaining extended component warranty period identified in the Exhibits. If Contractor fails to make good the deficiency in a timely manner, County, at its option, may correct the deficiency with the cost charged to the Contractor and deducted from any amounts due or which thereafter become due. If no amounts are or become due, the difference shall be paid to Country by Contractor plus any and all other damages to which County may be entitled as a result of such deficiency and Contractor's failure to make the corrections.

5.2 Latent Defects

If any defect of the kind referred to in Article 5.1 above shall appear in any part of the Contractor's equipment, material or workmanship within a period of forty eight (48) months after the date of Acceptance, the same shall be made good by the Contractor by repair or replacement at Contractor's expense if the defect would not have been disclosed by a reasonable examination prior to the expiration of the warranty period.

5.3 Equipment and Materials Warranty

Contractor directly warrants any workmanship, equipment and materials purchased and supplied by or through Contractor. Suitable warranties and guarantees shall be obtained by Contractor from its contractors and vendors which shall be unconditionally assignable to County or its designees upon request. County and Covanta shall be third party beneficiaries of all vendor and subcontractor<u>Subcontractor</u> warranties.

5.4 Performance Guarantees, Testing and Damages

Contractor shall be responsible for the fulfillment of the Performance Guarantees provided in the Exhibits.

END OF ARTICLE

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ARTICLE 6

INDEMNIFICATION, BONDS AND INSURANCES

6.1 Indemnification

To the fullest extent permitted by Applicable Law, Contractor agrees to protect, defend, indemnify and hold County and Covanta, its parent and Affiliate Companies, and their respective agents, successors, or assigns, including the officers, directors, officials and employees of the indemnitees, completely free and harmless from and against all allegations, liabilities, actions, damages, claims, demands, judgments, losses, costs, expenses, attorney's fee, suits, or actions, appeals, including liability for personal injury or death to any parties including Contractor's employees, or loss of or damage to property, arising directly or indirectly, actively or passively out of the performance or nonperformance of this Contract, including the negligence, willful misconduct, bad faith or lack of due diligence of Contractor, its agents, subcontractorSubcontractors, or employees. This obligation shall apply irrespective of whether there is a breach of a statutory obligation or any rule of apportioned liability except to the extent that such indemnification is precluded by Applicable Law. Indemnitee shall promptly notify Contractor of any claim for which indemnification is sought hereunder, give or afford Contractor opportunity to defend and shall not settle such claims without the approval of Contractor, which approval shall not be unreasonably withheld. Only in situations where the claimant alleges fault on the part of Contractor and another person indemnified under this paragraph, Contractor's obligation to fully indemnify and defend County and the other indemnitees referenced herein shall be limited to a maximum liability of twenty-five million dollars (\$25,000,000.00). This limitation on indemnification is incorporated by reference into the Project Exhibits and all other Contract documents applicable to this Contract.

6.2 Labor/Material and Performance Completion Bond

As a condition precedent, Contractor shall provide, substantially in the form attached as an Exhibit from a surety acceptable to County a Labor/Material Payment and Performance Completion Bond in an amount not less than the Contract Price for the benefit of County, Covanta and such other obligees as County may designate. Such Bond shall be and provide that it is unconditionally assignable to Covanta. The surety shall be licensed in the state or other jurisdiction where the Project is located and be currently listed in the U.S. Treasury Department's list of "Surety Companies Acceptable on Federal Bonds", A. M. Best Company, or as otherwise approved by County. This Bond shall be issued and delivered to County on or prior to the signature of the Contract by Contractor. Contractor's Performance Completion Bond shall expressly state that it covers the obligation of the Contract. Except for surety bond(s) provided under Article 4.8, LIENS, the premium on a Labor/Material Payment and Performance Completion Bond shall be stated separately in the proposal and shall be paid for by the County.

6.3 Insurances

Prior to commencing its services, Contractor, solely at its expense and irrespective of the manner or of the establishment of the premium costs, shall provide and maintain in effect the following types and amounts of insurance written on an occurrence basis with insurance companies licensed in the state or other jurisdiction in which the Project is located and rated A by A. M. Best Company. This coverage shall remain in effect for a period of thirty-six (36) months from Completion. Deductibles shall be permitted only with the consent of County. All premiums and costs associated with insurances required by this Contract no matter when, how or by whom determined including any increase in worker's compensation rates are for the Contractor's account and included in the Contract Price. Wherever the term County is used in this Article 6.3 et seq., it shall be deemed to include Covanta and its Affiliate Companies.

6.3.1 Workers' Compensation Insurance

Workers' Compensation Insurance required by Applicable Law covering all Contractor employees and with no deductible amount.

6.3.2 Employer's Liability Insurance

Employer's Liability Insurance with limits of \$1,000,000 per occurrence, accident or disease, with no deductible amount.

6.3.3 Comprehensive General Liability Insurance

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Comprehensive General Liability and Property Damage Insurance, with Contractual Liability, Products/Completed Operations, Personal Injury, Disease, Fire Damage, Legal Liability and Broad Form Property Damage liability coverages, with primary limits of liability of at least \$1,000,000 per occurrence, or amounts sufficient to support the purchase and maintenance by Contractor of excess liability insurance coverage in an amount of \$ 25,000,000 with County and Covanta as Additional Insureds.

6.3.4 Comprehensive Automobile Liability Coverage

Comprehensive Automobile Liability Insurance with a combined limit per occurrence for bodily injury and property damage of at least \$1,000,000 per occurrence or amounts sufficient to support the required excess insurance coverage, with County and Covanta as Additional Insureds.

6.3.5 Excess Liability Coverage

Excess Liability Insurance in form following primary insurances in the amount of \$25,000,000 per occurrence in excess of 6.3.2, 6.3.3 and 6.3.4, with County and Covanta as Additional Insureds.

6.3.6 Builders "All Risk"

Builders All Risk Insurance shall be provided for the Project by County or Covanta. This insurance shall be to the full insurable value of the Project and shall include "advance loss of profits." Covanta, County, Contractor and its subcontractor<u>Subcontractor</u>s shall be insured, as their interests shall appear. The policy shall contain a deductible of which the first \$25,000 of each loss shall be for the account of the Contractor or its <u>subcontractor<u>Subcontractor</u>s</u>. This policy shall not cover Contractor's equipment, which is the responsibility of the Contractor.

6.3.7 Waiver of Subrogation/Recourse

All Policies shall be endorsed to provide that underwriters and insurance companies of Contractor shall not have any right of subrogation or recourse against County and any Additional Insureds. Coverage shall be primary to any coverages maintained by or on behalf of County or Covanta and shall contain a severability of interest clause and cross liability endorsement. To the extent that compensation for any injury, loss or damage shall have been recoverable under any Contractor insurance policy, Contractor waives any claim for recovery from County or Covanta for such loss or damage arising out of the performance of this Contract.

6.3.8 Certificates

Before commencing Work on the Project, Contractor shall furnish acceptable certificates evidencing that the insurance required hereunder is in place, and, if requested, shall make available the actual policies for County or Covanta inspection. Each certificate shall list the Additional Insureds and shall provide that sixty (60) days prior written notice be given County and Covanta in the event of expiration, cancellation or other material change in the policies. Renewal certificates should be submitted at least thirty (30) days prior to the expiration of any insurance.

6.3.9 Subcontractors

Contractor shall require its <u>subcontractorSubcontractors</u> to obtain, maintain and keep in force, similar insurance coverages with limits appropriate to their risks and scope of Work. If requested by County, Contractor shall furnish County acceptable evidence of such insurance before the <u>subcontractorSubcontractor</u> commences its Work.

6.3.10 Insurance in Force

Contractor and its subcentractorSubcontractors shall not commence the shipment of materials, equipment or tools to or commence activity at the Site until all of the insurance that Contractor is required to provide is in force and the necessary certificates issued and delivered to County.

END OF ARTICLE

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CHANGES

7.1 Discretionary Rights of County

Subject to Contractor's rights under Article 7.2 below, County shall have the right at any time without the consent of Contractor to revise any elements of the Project (including elements already completed or being performed), add to or omit a part of the Work or Project previously authorized, make final decisions on interpretation of the Design, and designate or reject Contractor sources of supply.

7.2 Change Orders

7.2.1 County shall issue a Change Order only when elements of the Work are materially revised or when County requires additional work and services clearly beyond the Contractor's original scope, directs an omission or reduction in the Work or exercises any other such discretionary rights under Article 7.1 above.

7.2.2 If Contractor believes that a request, instruction, direction, action, interpretation or decision of County or Covanta meets the criteria for a Change Order, Contractor shall notify County and Covanta within (7) days from receipt of the request, instruction, direction, action, interpretation or decision, and within (14) fourteen days of such initial notification, submit a Change Order Request with information reasonably sufficient to enable County to make proper evaluation. The Change Order Request shall be accompanied by a detailed description of the circumstances, the specific reason for the change, a reasonably detailed work itemization and substantiation of any requested adjustment in Contract Price and/or Schedule. Contractor shall also furnish any documentation, charts, graphs, photographs and reports which bear on the change, specific references to the provisions of this Contract on which the Contractor's costs are materially and demonstrably affected, Contractor shall prepare and furnish an estimate of the effects of the change order. The Contract Price and/or Schedule. To the extent the Parties agree, County shall issue a Change Order. The Change Order shall be deemed inclusive of all costs, effects and impacts whether direct or indirect, including credits to County for reduced Work scope or increases in Contract Price for additions to the Work. Contractor's administrative costs in preparing any Change Order Request shall not be allowed.

7.3 <u>Pricing</u>

7.3.1 Wherever possible or practicable, a Change Order shall be fixed price. However, if this is not practical because of timing, economics or other constraints, the Change Order may be priced on a Time and Material, or such other basis as shall be agreed. Rates for Time and Material Work shall be set forth in the Exhibits and shall include all Contractor costs, charges, expenses, overheads and profit.

7.3.2 For Work performed on a Time and Material, basis, Contractor shall support each invoice with evidence of actual costs and expenditures including personnel time sheets, bills, invoices, receipts, bills of material, receiving documents or such other appropriate documentation. Contractor shall maintain accurate and detailed accounts for all such costs and shall permit County's and/or Covanta's auditors access to such accounts, books and records for audit purposes at reasonable times.

7.4 Payment

Change Orders shall adjust the Contract Price, be invoiced as part of the regular payment procedure, but itemized separately for record keeping purposes and subject to progress payment requirements of this Contract.

7.5 Change Orders Not Allowed

No Change Orders will be allowed for any claims of incomplete Design, revisions by Contractor required to fulfill the Design, revisions necessary for Contractor to achieve compliance with this Contract or to correct errors, omissions in its workmanship, equipment and materials information and cost estimates reasonably required by County to assure optimum operability; any claims of Contractor that the cost of materials, labor, services or time for performance have increased since Contractor estimated and settled its Contract Price or Schedule; overtime premiums or bonuses paid by Contractor for labor, or for earlier delivery of equipment or materials (except where such action was taken at County's specific request and such request did not result from the Contractor's having fallen behind the Schedule); technical reviews; directions and actions of County already consistent with the requirements of this Contract; or Contractor's failure generally to comply with the requirements of this Contract.

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7.6 Duty to Continue Work

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In the interest of the communities the Project is intended to serve, delays and disruptions must be kept to a minimum. Contractor shall comply promptly with instructions, authorizations, directions and notices given by County, notwithstanding that a Change Order may not have been issued or that agreement may not have been reached on the effects, if any, on Contract Price or Schedule. Although it is the intent of the Parties to agree as to whether a Change Order is in order and to settle its terms whenever reasonable in advance of the particular work or Work to be performed, failure to agree on a change or the terms thereof or to any adjustment in the Contract Price or Schedule shall be treated as a dispute in accordance with Article 11.5, but shall not excuse Contractor from proceeding with performance as requested. County also reserves the right to contract with a third party to perform disputed work or Work in the event an agreement is not reached with Contractor on the terms of the change.

END OF ARTICLE

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TERMINATION AND SUSPENSION

8.1 County Right to Terminate

County may at its sole convenience at any time and for any reason cease all or any part of the Work or Project and terminate Contractor's services with five (5) days Notice to Contractor specifying the portion terminated and the effective date. Contractor shall cease performing that part of the Work terminated but continue to perform unterminated part.

8.2 Termination for Default

8.2.1 If Contractor defaults in the performance of any material provision of this Contract, including without limitation failure to supply sufficient qualified personnel or Product, or to perform with diligence, or to make payments to its contractors, vendors or other suppliers of services or Product to the extent the same are due and owing; disregards Applicable Law; fails of its ability to achieve the progress or Completion; becomes insolvent or makes any assignment for the benefit of Contractor's creditors (including payments due under this contract) or in any way becomes subject to a petition in bankruptcy or to appointment of a trustee or receiver, County may give Contractor Notice of Default.

8.2.2 If the default is not cured or corrective action is not commenced within five (5) days of receipt of Notice, then County shall have immediate and complete title to all Product delivered and undelivered to County and shall be entitled to take possession of the Site, the Product and all of Contractor's equipment, materials, supplies and construction tools and equipment and complete the Work as it deems expedient. Contractor's surety shall be put on notice of County's rights to claim and recover under the terms of the payment and performance completion bonds.

8.2.3 Contractor shall not be entitled to any further payment until the Project is completed. The total cost of completion shall be charged to Contractor and may be deducted from any amounts due or which may thereafter become due to Contractor. If the amount due Contractor is insufficient to complete the Work, Contractor shall pay to County the difference and all actual and consequential damages. This remedy is not exclusive, but is in addition to any and all other rights, remedies and damages to which in the event of Contractor's default, County may be entitled to in contract, equity or by operation of law. Contractor shall remain responsible and liable for the cost of making good any warranty or guaranty items during the period such warranties would have been in effect had Contractor not defaulted.

8.3 Termination for Convenience

In the event the Work or part thereof is terminated at the convenience of County pursuant to Section 8.1 after the Notice to Proceed is issued, County shall pay Contractor subject to agreement as to amount, that pro rata portion (including reasonable profit) of the Contract Price which represents the amount of the Work satisfactorily performed, the Product put in place, materials and equipment procured prior to the effective date of termination plus Contractor's unavoidable vendor cancellation charges resulting directly from termination hereunder. County shall not be liable for any other sums to Contractor as a result of termination hereunder, including the loss of any expected or anticipated revenues or profits, under-utilization of personnel, equipment or manufacturing facilities, similar items of consequential loss or damages, or any other categories of costs, damages or claims.

8.4 Action Upon Termination

Upon the receipt of Notice of Termination, Contractor shall cease all activity, secure the Site, place no new orders for Product or services, provide a schedule or listing of all vendor orders or commitments and, unless otherwise directed, cancel all orders placed or commitments made. Contractor shall, if requested, assign subcontracts and purchase orders to County, execute and deliver to County all documents and other deliverable items and take all other necessary steps to vest in County the rights and benefits of Contractor under such existing agreements, including the certifications of a professional engineer.

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8.5 County Right to Suspend

County may suspend any part of the Work at any time and for any reason upon twenty-four (24) hours Notice to Contractor specifying the part to be suspended and the effective date. Contractor shall cease performance on the suspended portion, but shall continue to perform any unsuspended portion. For the portion suspended, only the cost of those items authorized in advance by County shall be allowed during the period of suspension for which a Change Order will be issued. County may, at any time, authorize resumption of the suspended Work on Notice to Contractor and Work shall be promptly resumed by Contractor after receipt of such Notice. If said suspension has been in effect for at least one hundred twenty (120) days and provided such suspension has not occurred in whole or in part because of defects or deficiencies or any material breach of this Contractor by Contractor, Contractor may notice County of its intention to terminate the suspended Work. If County does not authorize a resumption within ten (10) days of Contractor's notice, Contractor may terminate the suspended Work. For purpose of compensation, termination hereunder shall be deemed a termination for County's convenience pursuant to Section 8.1. County shall not be liable for any damages or loss of expected revenue or profits of Contractor, due to under-utilization of personnel, equipment or manufacturing facilities or similar items of consequential loss or damages as a result of any suspension.

END OF ARTICLE

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ARTICLE 9

COUNTY RESPONSIBILITIES

9.1 General Specification

County shall provide Contractor with the Design, including drawings, plans and specifications as well as the other appropriate documents and information necessary to Contractor's performance.

9.2 <u>Site</u>

County shall provide the Site including suitable access, ingress and egress. Parking for staff and work force, and storage shall be arranged and provided by Contractor, unless otherwise agreed with County and Covanta.

9.3 Permits: Licenses: Approvals

County shall obtain and make available planning, zoning, environmental and similar permits and other necessary official approvals for the Project, excepting those licenses, registrations and permits specifically required to be provided by Contractor under this Contract or necessary to enable it to perform and to carry on its business as a Contractor in the jurisdiction of the Site. County shall provide information, as is available and may be necessary, to assist Contractor in obtaining all permits and licenses required to be obtained by Contractor under this Contract and by Applicable Law. Contractor shall provide reasonable technical support and other assistance to the County permit approval process as may be requested or support in the issuance of a Notice to Proceed.

9.4 Project Manager

County shall appoint a Project Manager (or other authorized representative) who shall have the sole authority to act for County with respect to this Contract, all matters pertaining to the Project and Contractor's performance. Communications in the normal course of Project implementation received by him shall be deemed to have been received by County subject to Article 11.11 respecting formal Notices required under the Contract. County may also appoint a Resident Construction Manager who shall be delegated authority by the Project Manager to act with respect to day to day on-Site technical and commercial matters.

END OF ARTICLE

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ARTICLE 10

CONFIDENTIALITY AND NONDISCLOSURE

10.1 **Confidential Information**

10.1.1 As used herein, Confidential Information means information now or hereafter owned by, or otherwise within . the possession or control of County or Covanta including, without limitation, patented and unpatented inventions, business and trade secrets, know-how, techniques, data, specifications, as-built drawings, blueprints, flow sheets, designs, engineering information, construction information, operation criteria and other tangible and intangible information related to the purposes of this Contract. County or Covanta has or will disclose to Contractor Confidential Information of County or Covanta, its parents, subsidiaries, Affiliate Companies and others in order for Contractor to perform the Work. All drawings, specifications, blueprints, calculations, data, reports and other documents, as well as information, improvements in connection with the Project and documents developed by Contractor or supplied to Contractor by County or Covanta, all whether manifest as writings or computer programs or codes, shall be deemed Confidential Information.

10.1.2 Contractor agrees that it will not use the Confidential Information for any purpose other than the accomplishment of the Project, and that except for employees or contractors of Contractor described below, Contractor will not any time without the prior written consent of County and Covanta, publish, disclose or otherwise disseminate, duplicate or use, directly or indirectly, Confidential Information to or for the benefit of any third party whether or not it relates to a process, product, equipment or apparatus embodied therein. Any third party request to pursue records pursuant to Chapter 119, Florida Statutes shall be immediately forwarded to the County with a copy to Covanta.

10.1.3 The foregoing shall not apply to knowledge or information which (i) at the time of disclosure is already in the public domain or public knowledge; (ii) after disclosure, becomes part of the public domain or public knowledge by publication or otherwise, except by breach of this Contract by Contractor; (iii) Contractor can establish by competent written proof was in its possession at the time of disclosure by County or Covanta and was not acquired, directly or indirectly, from County or Covanta, (iv) is required by a validly issued subpoena, warrant or court order provided the Contractor shall have so notified County and Covanta and shall have refrained from making such disclosure to the fullest extent permitted to afford County or Covanta a period of time within which County or Covanta may challenge such subpoena, warrant or court order in the appropriate forum.

10.2 Subcontractors, Vendors and Employees of Contractor

Contractor shall disclose Confidential Information only to those contractors, suppliers and employees of Contractor directly involved in the Project on a need to know basis. Contractor shall advise each such contractor, vendor and employee that he, she or it will be strictly bound by the terms, conditions and intent of this Article and that a violation will constitute a material breach of this Contract by Contractor. County or Covanta may, in certain instances, require that such parties or persons furnish County and Covanta a statement that they have read this provision and agree to abide strictly with its terms.

10.3 Inventions and Improvements

Should Contractor or any employee, representative, vendor or contractor of Contractor assigned to or involved in the Project make any inventions or improvements to or connected with the Project, the same shall become the sole and exclusive property of Covanta. Contractor agrees to notify County and to execute or cause to be executed any and all patent applications, assignments or other documents required to vest and retain in County, or its assignee, title to any and all such inventions or improvements. County shall pay the reasonable out-of-pocket expenses of Contractor in connection therewith.

10.4 Ownership and Disposition

No right or license is granted respecting the use of Confidential Information. Title thereto and all intellectual property rights therein shall be in County or, as applicable Covanta, at all times. Upon Completion, Contractor shall promptly deliver to Covanta all copies of the Confidential Information which are in its possession or under its control including all drawings, specifications, blueprints, reports and other documents which have been prepared or developed by Contractor for the Project or which are supplied to Contractor by County or Covanta. If County does not issue a Notice To Proceed or terminates the Work of Contractor, all copies of Confidential Information shall be destroyed or JEK\PMC\Contracts.93

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be returned to County forthwith as may be directed by County. Contractor, its subcontractorSubcontractors and vendors, and their respective employees and agents shall cooperate with County to establish such right and title and shall, at County's expense, assign all rights they may have with respect thereto to County, or assignee, and execute such documents as County may request to effect such purpose. To the extend that copies of Confidential Information are authorized in writing by County and Covanta to be retained by the Contractor, such copies shall be retained subject to the confidentiality requirements of this Article. The Contractor shall label and identify all Confidential Information as such and take all necessary precautions to protect Confidential Information from intentional or accidental disclosure.

10.5 <u>Publicity</u>

Contractor shall not advertise, issue brochures or make any announcement or release or publish any information for promotional, informational or any other purpose concerning the content of this Contract, the Confidential Information, the Existing Facility, the Project or the services performed by Contractor hereunder to any third parties, including the public, the press or any official body without the express written permission of County and Covanta management personnel authorized to grant such permission. Contractor acknowledges that the trade and service names, marks, and logos of Covanta, and all Affiliate Companies are of great value and agrees not to use or permit their use (or misuse) in any manner that would impair the rights or image of Covanta or the County.

10.6 Remedies for Breach

Contractor agrees that any breach of this Article is material and shall entitle County or Covanta to obtain from any court of proper jurisdiction injunctive relief including an accounting for all profits or benefits arising out of such breach in addition to any other legal remedies (including termination of this Contract for breach) and damages to which County may be entitled.

10.7 Duration of Obligations

The obligations of Contractor under this Article shall survive the ending or termination of this Contract and shall continue for a period of ten (10) years from Acceptance or termination of the Contract.

END OF ARTICLE

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ARTICLE 11

GENERAL PROVISIONS AND COVENANTS

11.1 Compliance With Applicable Law: Postings

11.1.1 Contractor shall be aware, observe and abide by all Applicable Laws. Contractor agrees to defend, indemnify and hold County and Covanta harmless (including expenses and legal fees) from any liability or penalty which may be imposed by reason of Contractor's failure or alleged failure to observe and abide thereby.

11.1.2 [reserved]

11.1.3 To the extent applicable to Contractor, Contractor acknowledges that the export of commodities or technical data from the United States and/or the re-export of commodities or technical data of U.S. origin, may be conditioned upon the issuance of an export license by the Government of the United States of America. Contractor represents and warrants that it will not export or re-export any commodities or technical data in furtherance of this Agreement unless and until it has complied in all respects with applicable U.S. export control regulations.

11.2 Business Standards

In the performance of its obligations under this Contract, Contractor shall establish and maintain appropriate business standards, procedures and controls designed to prevent any real or apparent improper, unethical, criminal or other behavior which could adversely impact the interests of County, Covanta and its Affiliate Companies. If requested, Contractor shall review with County such business standards and procedures including, without limitation, those related to the activities of Contractor's employees and agents in their transactions and relations with County's and Covanta's employees, agents and representatives, vendors, subcontractor<u>Subcontractor</u>s, governmental authorities, and other third parties.

11.3 <u>Title</u>

Title to the project and all Product or portions thereof shall pass to County or its designee upon delivery to County, or upon payment, whichever event first occurs. Contractor warrants that all Product furnished by Contractor is and shall remain free from any defects in such title including liens, claims, security interests and encumbrances of any kind. Contractor shall defend such title against a claim by any party and shall indemnify and hold County and Covanta completely harmless from and against any and all loss, costs, damage expense and other liability of any nature arising out of or otherwise resulting from any failure to comply with this warranty. As partial security for the performance of its obligations under this Contract, Contractor hereby grants to County a security interest in and to the Work and Product prior to the interests of any other party until passage of title. Upon request Contractor shall execute the necessary documentation and provide necessary assistance to County in order to permit County to perfect the security interest. It is expressly understood and agreed, however, that (i) the establishment of the security interest shall not release Contractor from its responsibility to fully carry out its obligations under this Contract and (ii) notwithstanding the passage of title. Contractor shall retain full care custody and control and all risk of loss until Acceptance.

11.4 Force Majeure

11.4.1 Delay in or failure to carry out the duties imposed upon Contractor under the Contract shall not be deemed breaches of the Contract if such delay or failure is caused by the following Force Majeure events and by no others: fire, explosion, casualty or accidents, epidemic, cyclone, flood, drought, natural disaster, war, civil commotion, acts of public enemies, blockade or embargo, provided none of the foregoing events were caused by or through the acts, errors, negligence or carelessness of Contractor. Transport difficulties, labor, equipment or materials shortages, lack of productivity, strikes or other labor disputes of any kind (except a national strike) shall not constitute a basis for an event of Force Majeure. Contractor shall give prompt Notice thereof to County and Covanta, and shall attempt to remedy with all reasonable dispatch the cause or causes constituting the Force Majeure, keeping County reasonably informed.

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11.4.2 If Contractor was delayed in Completion exclusively by reason of a Force Majeure event for which it is relieved of delay liability hereunder, the date for Completion shall be extended to the extent necessary to compensate for the delay directly resulting from the event. However, no such extension shall (i) exceed the total delay encountered taking into account Contractor's use of best efforts to mitigate the effects of an event and ability to reschedule activities to minimize or eliminate delays in the Completion notwithstanding delays to certain portions of the Work or (ii) be granted unless written notice of such event is given to County as provided above, and (iii)be granted unless a claim for such extension is presented in writing to County within ten (10) days after the termination of such event. The foregoing shall be Contractor's sole remedy for an event of Force Majeure.

11.5 Disputes and Claims

The Parties shall cooperate to facilitate the efficient and timely performance of the Project. The Parties further agree to undertake in good faith the resolution of disputes, if any, in an equitable and timely manner so as to avoid where feasible the need for legal claims or court actions of any kind. In the interest of the Project and the communities it is intended to serve, Contractor shall continue uninterrupted its performance pending the resolution of any dispute. In any dispute arising out of or relating to this Contract, the prevailing party shall be entitled to an award of its costs and reasonable attorneys' fees, including all such costs and fees incurred on appeal.

11.6 Infringement of Proprietary Rights

Contractor represents and warrants that technology, equipment, apparatus, methods, engineering, designs and services provided by Contractor do not, in whole or in part, infringe the patent or proprietary rights of any party. In the event of an infringement or claim thereof, Contractor shall (1) protect, defend, indemnify and hold County and Covanta completely harmless therefrom and shall pay any liability, attorney's fees or costs in connection therewith; and (ii) at Contractor's cost and expense, promptly remove the source of the claim of infringement and procure the right to continue the use of such infringing (or allegedly infringing) item or method, technology or equipment including the payment of any royalties or other fees required, all at no cost to County or Covanta.

11.7 Firearms, Drugs and Alcohol

The use or possession of firearms (or other similar dangerous devices), unlawful drugs or other controlled substances or the possession or consumption of alcoholic beverages on the Project or Existing Facility premises is expressly prohibited. It shall be the duty of Contractor to strictly enforce this prohibition, including the removal of offenders.

11.8 Assignment

11.8.1 This Contract shall not be assigned by Contractor without the prior written consent of County and any such attempted assignment shall be void from the beginning. If an assignment is consented to, Contractor shall not be relieved of its obligations hereunder until they have been irrevocably and unconditionally assumed by the assignee.

11.8.2 There shall be no restriction on County's right to assign this Contract (or any portion thereof) except that such assignee shall have agreed to assume County's obligations hereunder. Up on notice to Contractor, County may, at its sole option, assign, transfer and convey all of its rights, obligations, title and interests (or any portion thereof), without Contractor's consent, to and under this Contract to a third party engaged by the County to construct the Project or erect the equipment. In the event the County elects to make such assignment, Contractor shall, to the extent reasonably required, cooperate with said third party in all respects to ensure efficient and cost effective erection and execute an Assignment and Assumption Agreement reflecting the above mentioned assignment and transfer of rights, obligations, title and interests. The Agreement shall be binding on the Parties and their respective successors and assigns.

11.9 Relationship of the Parties

Contractor at all times shall be an independent contractor. County shall have no responsibility whatsoever with respect to obligations assumed by Contractor and nothing in this Contract shall be deemed to constitute County a partner, agent or legal representative of Contractor or to create any fiduciary relationship.

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11.10 Nondiscrimination in Employment/ Affirmative Action

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11.10.1 Contractor shall comply with the County's Disadvantaged Minority and Women Business Enterprise ("DM/DWBE") Participation Contract Specifications attached hereto as Exhibit K.

11.10.2 Contractor shall not discriminate against any applicant for employment because of age, race, creed, color, disability, marital status, sex, national origin, ancestry, sexual orientation and arrest record. Contractor shall post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions required by the Applicable Law, including, without limitation, the DM/DWBE requirements referenced in Exhibit K and all other federal, state and local fair employment laws, orders, regulations and ordinances. Contractor shall abide by any additional special provisions that may be mutually agreed upon as part of this Contract

11.10.3 To the extent required by Exhibit K Contractor shall ensure participation by business enterprises that are owned by minorities, females and the disabled per Applicable Law and the said Special Conditions of the Contract. Contractor shall bind its subcontractorSubcontractors and vendors to similar requirements. Contractor understands that County may be obligated to ensure such participation and may suffer sanctions for failure to do so. Should any sanction be imposed upon County for noncompliance and such noncompliance is solely attributable to the Contractor, Contractor shall be assessed responsibility for the sanction.

11.11 Notices

Formal Notices and consents required or permitted by this Contract shall be in writing and may be delivered by hand, recorded express delivery or certified mail, return receipt, all costs and fees pre-paid with Notice deemed to have been given upon receipt, addressed as follows:

If to County:	Lee County Contracts Management P.O. Box 398 Fort Myers, Florida 33902-0398
Copies to:	Lindsey J. Sampson - Director Lee County Solid Waste Division 10500 Buckingham Road Suite 200 Fort Myers, FL 33905
	Lee County Attor ney 2115 2 nd Street, 6 th Floor P.O. Box 398 Fort Myers, FL 33902
	Covanta Lee, Inc. 40 Lane Road P. O. Box 2615 Fairfield, New Jersey 07007-2615 U.S.A. Attention: Project Manager
 If to Contractor:	Crowder Construction Company 1990 New Cut Road Spartanburg, SC 29303
	Attention: Project Manager
 Сору-То:	- Corporate Sponsor

Changes in the respective addresses to which such Notices shall be directed may be made from time to time by either Party by Notice to the other Party.

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11.12 Law/Jurisdiction

The Parties consent to the jurisdiction of the courts (including Federal Courts) of and in the state of Florida. The laws of that state (without giving effect to its conflict of laws principles) shall govern the validity, interpretation, construction and performance of this Contract.

11.13 Entire and Complete Contract

This Contract together with all Exhibits, Change Orders and any other valid amendments and annexures constitutes the entire and complete agreement of the Parties with respect to the accomplishment of the Work, superseding all prior or contemporaneous understandings, arrangements and commitments, all of which, whether oral or written, being superseded and merged herein.

11.14 Binding Effect

This Contract shall be binding upon and inure to the benefit of the Parties, and to any successor or assignee validly acquiring an interest hereunder consistent with this Contract.

11.15 Other Documents

Each Party agrees to execute and deliver any instruments and to perform any acts that may be necessary or reasonably requested in order to give full effect to the intent and purpose of this Contract.

11.16 <u>Waiver</u>

Unless otherwise specifically provided by the terms of this Contract, no delay or failure to exercise a right whether or not resulting from any breach of this Contract shall impair such right or shall be construed to be a waiver thereof. Such right may be exercised from time to time and as often as may be deemed expedient. Any waiver shall be in writing and signed by the Party granting the waiver. If any representation, warranty or covenant contained in this Contract is breached by either Party and thereafter waived by the other Party, such waiver shall be limited to the particular breach so waived and shall not be a waiver of any other breach under this Contract.

11.17 Visitors, Photographs, Security

Contractor shall be responsible for the security and protection of the Project Site. Visitors shall be restricted, controlled, and protected. No photographs or video recording will be permitted without the prior approval of Covanta.

11.18 Third Party Rights

This Contract is not entered into for the benefit of any third party not specifically designated herein as an intended beneficiary and no rights shall arise from or be deemed to be granted herein or hereby to or for the benefit of any such third parties.

11.19 Severability

In the event that any provision of this Contract is held to be unenforceable or invalid by any court of proper jurisdiction, the remaining provisions shall be construed to reflect the Parties' original interest and intent as closely as possible without giving effect to the invalidated provision.

11.20 Survival of Obligations

Notwithstanding County's Acceptance of the Work or the termination of this Contract pursuant to its terms, any duty or obligation of Contractor and which has not been fully observed, performed and/or discharged and any right, unconditional or conditional, which has been created for the benefit of County or Covanta and which has not been fully enjoyed, enforced and/or satisfied (including but not limited to the duties, obligations and rights, if any, with respect to confidentiality, secrecy, indemnity, warranty, guaranty) shall survive such Acceptance or termination until such duty or obligation has been fully observed, performed and or discharged and such right has been fully enjoyed, enforced and/or satisfied.

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11.21	<u>Headings</u>	
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Captions and headings in this Contract are for ease of reference only and do not constitute a part of this Contract.

11.22 Counterparts

This Contract may be executed in more than one counterpart, each of which shall be deemed an original.

END OF ARTICLE

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IN WITNESS WHEREOF, the Parties have caused this C by their respective officers, duly authorized, as of the day	Formatted: Font: Courier, 14 pt, Bold		
ATTEST: CHARLIE GREEN			
Deputy Clerk	Ву:		
	Name:		
Title:			
	Name:		
	Title:		
APPROVED AS TO LEGAL FORM AND CONTENT	APPROVED AS TO LEGAL FORM AND CONTENT		
OFFICE OF THE LEE COUNTY ATTORNEY	COUNSEL TO CONTRACTOR		

JEK\PMC\Contracts.93 | Revised for LEEX 12/2<u>3</u>4/04 Supply/Construction

EXHIBIT A

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GENERAL CONSTRUCTION REQUIREMENT

JEK\PMC\Contracts.93 Revised for LEEX 12/234/04 Supply/Construction <u>- Chewder</u>

EXHIBIT B

Design—Plans and Specifications

Conformed Technical SpecificationsSEE TECHNICAL SPECIFICTION

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	PAYMENT PROCEDURES	
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	(LATER)	
	Contract Price: is as stated in Contract Article 4.2	Formatted: Left
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	Payment Schedule: Payment shall be on earned value based on monthly progress completion and in accordance with Contract Article 4.2.	

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"DRAFT CONTRACT"

EXHIBIT D

PROJECT SCHEDULE

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EXHIBIT É

SCHEDULING AND PROGRESS REPORTING PROCEDURES

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EXHIBIT F

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FE-RESPONSIBILITY MATRIX

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EXHIBIT G

Covanta Contractor Safety Requirements

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EXHIBIT H

PERFORMANCE TESTING AND GUARANTEES

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EXHIBIT I

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RATES FOR TIME AND MATERIAL WORK

(see Proposal Form)

EXHIBIT J

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APPROVED SUBCONTRACTORS AND VENDORS

(see Proposal Form)

EXHIBIT K

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Lee County DM/DWBE Rules

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EXHIBIT L

PRE-START UP FUNCTIONAL INSPECTION, TESTING AND PRE COMMISSIONING

FOR CONTRACTOR'S SCOPE OF WORK, IT IS THE CONTRACTOR'S OBLIGATION TO DELIVER A COMPLETE AND OPERABLE FACILITY, SYSTEM OR UNIT, FUNCTIONALLY TESTED, READY FOR THE START-UP AND THE CONDUCT OF ACCEPTANCE TRIALS BY COUNTY AND COVANTA.

ALTHOUGH THIS EXHIBIT LISTS A NUMBER OF THE ACTIVITIES TO BE PERFORMED BY THE CONTRACTOR, IT IS NOT INTENDED TO BE EXHAUSTIVE. CONTRACTOR WILL BE REQUIRED TO PERFORM ALL OF THE ACTIVITIES CONTEMPLATED BY OR REASONABLY INFERRED FROM THIS EXHIBIT, THE CONTRACT, THE SPECIFICATIONS, APPLICABLE CODES AND REGULATIONS, STANDARDS OF THE INDUSTRY, OPERATING MANUALS AND INSTRUCTIONS, INCLUDING ANY SPECIAL INSTRUCTIONS OF SUPPLIERS, COUNTY OR COVANTA.

CONTRACTOR SHALL ENSURE THAT THE PERSONNEL RESPONSIBLE FOR THE IMPLEMENTATION OF THIS EXHIBIT ARE THOROUGHLY FAMILIAR WITH AND UNDERSTAND THE REQUIREMENTS.

UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL ACTIVITIES, REQUIREMENTS, AND RESPONSIBILITIES INDICATED IN THIS EXHIBIT ARE THE CONTRACTOR'S.

SECTION I

General

1.1 <u>Start-up</u>.

1.1.1 Start-up is defined as the initial operation of the Project or its constituent parts by Covanta with municipal waste or other fuels as appropriate.

1.1.2 To commence preparation for start-up, the Covanta start-up team will be represented, assembled and/or present on the Site during the final six (6) months of construction to inspect the machinery, systems and structures. Also present during this period will be members of the permanent operating staff who will be observing the preparations for start-up and getting familiar with the equipment and systems as they are tested and turned over by Contractor and started-up by Covanta.

1.1.3 Contractor and its manufacturers' representatives shall instruct and guide Covanta's start-up and operations personnel in the proper operation and maintenance of the equipment, systems and units.

1.2 Operability.

1.2.1 In order to achieve operability, the Contractor for its Work, shall thoroughly inspect, check, functionally test and verify all components and equipment (including vendor supplied equipment), the systems and sub-systems into which the components have been assembled, the units made up of the assembled systems, and the interior and exterior of <u>all</u> structures to ensure that the Project or portion thereof for which it is responsible is complete and functioning as an integrated whole.

1.2.2 Such inspections, checks and tests shall extend equally (i) to each component and individual item of equipment on a stand-alone basis (ii) as a part of a larger system or sub-system, (iii) as

a part of a unit which is, in turn, made up of or served by a number of systems and (iv) the complete integrated Project.

1.2.3 To support an orderly and expeditious start-up, individual items of equipment and systems shall be completed in a sequence that will enable system checkout and trial testing of components.

1.2.4 A representative listing of materials, equipment and systems is attached.

1.3 <u>Safety Clearances</u>.

Testing activities shall be in compliance with the safety clearance tagging procedures described in Section II of this Exhibit as well as the safety directions and instructions given in manuals supplied by the manufacturers and vendors and requirements of applicable law.

1.4 <u>General Contractor To Coordinate</u>.

Contractor shall plan, coordinate and monitor the testing activities of its own, its subcontractorSubcontractors and its vendors. Contractor's subcontractorSubcontractors and vendors shall coordinate their respective activities with Contractor who shall in turn coordinate with Covanta resident construction and start-up personnel. Contractor shall plan for, coordinate with, and collaborate on the testing activities of all other contractors and vendors including other County and Covanta contractors.

1.5 <u>Cost</u>.

1.5.1 Except as provided in 1.5.2 below, the activities described in this Exhibit are a part of Contractor's Work and the cost included in the Contract Price.

1.5.2 However, the cost of correcting or making adjustments to equipment furnished by County or Covanta shall be reimbursed to Contractor or paid for by County provided the cause of such correction, repair or adjustment was not occasioned by the Contractor's installation of, or damage to, the equipment, system or unit. Defects or damage to County or Covanta supplied equipment shall be promptly reported by Contractor to the supplier of the equipment and to County and Covanta.

1.5.3 For County supplied equipment, where necessary, County shall cause the manufacturer to furnish technical expertise, tools and materials for the inspection and testing without cost to Contractor. All other technical expertise shall be provided by Contractor.

1.6 Pre-Commissioning Phases.

The pre-commissioning activity shall constitute four general phases.

1.6.1 <u>Phase I</u>. Contractor shall verify the completeness of a system and related equipment and conformance to the design, flow diagrams, construction and vendor drawings and prints, codes, specifications and regulations.

1.6.2 <u>Phase II</u>. Contractor shall demonstrate and verify that (i) components and systems function on an integrated basis independent of operational loads (i.e. pumps, motors and the associated controls and instrumentation including alarms, buttons, switches, indicators, etc.,); (ii) the equipment is mechanically and electrically functional per specifications and drawings; (iii) factory assembled components have not been damaged in shipment or during installation and (iv) all associated instrumentation is properly calibrated. The Contractor shall functionally test factory-assembled equipment

using "dummy" signals, temporary or portable utilities or with the use of 3 to 15 pound air signals to P to I transmitters and the like. No permanent power source shall be used without the approval of County.

1.6.3 <u>Phase III</u>. Contractor shall demonstrate and confirm that all individual systems will operate mechanically and electrically in a <u>processing</u> mode.

1.6.4 <u>Phase IV</u>. Contractor shall demonstrate that <u>its particular unit</u> or the Project is mechanically and electrically operable as an integrated basis.

1.7 <u>Test Aids</u>.

1.7.1 Contractor shall furnish all supervision, expertise, labor, equipment and test devices, including silencers, blinds, strainers, temporary valves and heat exchangers, gaskets, tools and equipment, temporary or portable utilities, temporary piping and wiring, oils, lubricants, chemicals, cleaning agents, consumables, test media, and similar special materials.

1.7.2 All test media, chemicals and other materials shall be carefully disposed of in compliance with rules and regulations governing their composition and safe disposition.

1.8 <u>Test Plans</u>.

1.8.1 The testing of complex or highly sensitive systems and equipment will require special preparation. In all such cases, Contractor, in conjunction with manufacturer's representatives, technicians, Covanta and County, shall prepare a detail test protocol and test plan manual containing all information and data necessary to a successful test program including the level and quality of performance to be achieved, schedules, procedures, measuring criteria, test aids and equipment, test sequences, report procedure and forms, equipment descriptions, clearance tag procedures, system designators, and the like. The protocol or plan shall be reviewed with County, Covanta and the manufacturer's representatives at least six (6) weeks prior to the tests.

1.8.2 The protocol plan and manual shall be organized and indexed by milestone and turnover sequence. All inspection and test results shall be recorded and delivered to County and Covanta.

1.9 Documentation/Reporting.

1.9.1 The operating characteristics of all equipment and systems shall be logged, recorded and reported on printouts from the facility computer (if available), strip or round chart recorders or other data recording devices appropriate to the equipment being tested and checked.

1.9.2 Information to be logged, recorded and reported shall include electrical readings, speed, capacities, suction and discharge pressures, head and fan static pressures, bearing cooling fluids and temperatures, seal and lubrication temperatures and flows, vibration ranges and the like. It shall not be necessary to record vibration readings on equipment rated at less than 5 hp unless observations indicate the need for specific data.

1.9.3 All data shall be obtained on common time basis and recorded at regular specified intervals after the equipment has been run-up and stabilized. Equipment shall be operated at the minimum time specified by the manufacturer or sufficiently to obtain sufficient data and check and ensure smooth operation. All unacceptable or unexplained readings and values shall be promptly investigated, but <u>only</u> after the equipment has been completely shut down and secured.

1.9.4 Vibration and thermal expansion exceedances shall be recorded and corrected, with associated piping re-aligned, adjusted and retorqued in hot and cold service.

1.9.5 Documentation, readings, results and data of every type shall be timely submitted to County and Covanta in the manner and upon forms furnished by County or approved in the test plan. A number of these forms are attached to this Exhibit. Others may be added.

1.9.6 Contractor shall deliver to County and Covanta and maintain in its records and files a complete log of all checks, inspections, tests and corrective action.

1.10 Notices and Test Schedules.

Test schedules shall be given to County and the Covanta resident construction manager, project manager and start-up manager with sufficient time allowed for County and Covanta representatives to arrange to witness the activity.

1.11 <u>Completion and Correction</u>.

1.11.1 Contractor shall complete any unfinished Work, make all corrections, repairs and adjustments revealed by the activities of Contractor per this Exhibit and re-test as necessary.

1.11.2 The Contractor shall submit full details of any deficiency or failure and Contractor's proposed remedy before proceeding. Upon County and Covanta approval of the proposed remedy, Contractor shall repair the defect(s) and retest.

1.11.3 County and Covanta shall have the right to reject and order the removal and replacement where defects cannot be quickly remedied. However, County and Covanta shall also have the right where prudent, to use the equipment until such time as the new or repaired equipment is provided. Removal and replacement of rejected equipment shall be scheduled at County's and Covanta's reasonable convenience.

1.11.4 No follow-up or corrective Work shall be performed until and unless the equipment, system or area has been cleared in accordance with the tagging or other Work clearance requirements and procedures described in Section II of this Exhibit.

1.11.5 Except for County and Covanta furnished equipment (1.5.2), all expenses to correct defects in Contractor's Work shall be borne by Contractor.

1.12 <u>Turnover of Work</u>.

1.12.1 Once the Work (or a portion thereof) has been completed, inspected, run-in, checked and tested, with all adjustments, corrections and repairs having been made, re-inspected, rechecked and re-tested as necessary, the Contractor shall confirm the same to be in order. Using the Turnover and Turnover Exception forms included with this Exhibit, Contractor shall turn over the Work (the "Turnovers") ready for start-up, initial operation and commissioning by Covanta start-up personnel.

1.12.2 Before making a Turnover, Contractor, County and Covanta shall jointly inspect (walk down) the subject of the Turnover. Where appropriate, the "walk down" shall be conducted in the presence of the manufacturer's representative. Contractor shall provide County and Covanta at least two (2) weeks notice of such inspections or walk-downs or their re-scheduling.

1.12.3 Turnovers may be made of individual items of equipment, assembled systems, sub-systems or entire units, but shall be sequenced in the order required by County and Covanta for an efficient and orderly start-up.

1.12.4 Upon turnover, Covanta shall attach, as appropriate, either a Turnover Tag or other designated label evidencing that the equipment has been turned over to the start-up group. Specimens of the tag and label are attached. No further Work is to be performed on such equipment or

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systems unless and until it has been "cleared" (or re-cleared) for re-access in accordance with the clearance procedures described in Section II of this Exhibit.

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1.12.5 Contractor shall continue to protect all equipment from weather, corrosion or damage until the Turnover is completed. Particular care shall be taken with machined parts, electrical devices, instruments, motors and the like, all of which require the highest level of protection including heated storage where necessary.

1.12.6 No uninspected, unchecked or untested equipment, components, systems, units or structures or any incomplete Work shall be turned over. All such items will be rejected, and each rejected item identified and numbered. Contractor shall re-address all such items before they can be reconsidered for acceptance. Uncompleted Field Change Requests (FCR) and temporary installations shall be rejected. On approval by County and Covanta, corrections which cannot be immediately accomplished shall be removed to the punchlist.

1.12.7 Turnovers shall be accomplished by delivery of a Turnover package signed off by Contractor's authorized representative. The package shall include equipment descriptions, manufacturers, data books, operation/maintenance manuals, drawings (with revisions) clearly identifying the subject and the boundaries of the Turnover, lubrication requirements and records (Lube Tickets), all test records and reports, exception forms and a listing of items to be transferred to the punchlist.

1.12.8 County and Covanta shall acknowledge acceptance of a Turnover package by endorsing the appropriate form or otherwise acknowledge it in writing.

1.12.9 The acknowledgment of a Turnover shall transfer custody and control but shall not constitute its Acceptance under the Contract.

1.13 Independent Experts.

In addition to the technical services of manufacturers, Contractor shall (unless it possesses such expertise and facilities within its own organization) retain the services of qualified firms engaged in the cleaning and flushing of piping, steam and other systems; the setting, connection and alignment of equipment; and the testing and calibration of electrical instrumentation and controls. These firms shall be recognized as experts and professionals in their industry, be independent of the manufacturers or installers of the equipment, be regularly engaged in the testing of such equipment and systems, utilize skilled technicians regularly employed full time by the firm, and be required to submit detailed test procedures and documented results of their activities. The activities of these firms will be directed and coordinated by Contractor.

1.14 Resource Availability.

1.14.1 Contractor shall provide experienced supervision familiar with preparations and procedures for the start-up of power plant equipment and systems. This supervision shall cooperate and interface with County and Covanta start-up management and staff including scheduling, development of test plans and procedures, turnover walkdowns and the reporting, documentation and expediting of uncompleted critical Work.

1.14.2 During the period of start-up, Contractor shall have readily available on a 24 hour, seven day/week basis the resources (special expertise, labor, materials, tools) necessary to complete any unfinished Work or to correct deficiencies revealed in the course of testing or during start-up. The cost of this manpower is included in the Contract Price.

1.14.3 Contractor shall have readily available craft specialists to provide assistance, make changes, additions or adjustments to the equipment beyond Contractor's scope of Work, but requested by County. The cost of this special assistance shall be reimbursed to Contractor in accordance with the unit rates in the Contract, or as shall be agreed.

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1.15 Services and Expertise of Manufacturers and Suppliers.

1.15.1 For equipment and materials furnished by County or Covanta but installed by the Contractor, manufacturers' field services will be arranged by County at Contractor's request upon at least two (2) weeks notice to County and Covanta. Contractor shall coordinate its activities with the services of the manufacturers' representatives. Whenever manufacturers' personnel are on the jobsite for this purpose, the Contractor shall be present.

1.15.2 For equipment and materials furnished by Contractor, manufacturers' field services shall be arranged by the Contractor and employed whenever, in prudence, their services would be required or helpful. The Contractor shall be present whenever manufacturers' personnel are on the jobsite for inspection, testing or servicing of their equipment. During the start-up period field services and support shall be provided on 24-hour basis. The cost of these services, including premium pay, shall be born by the Contractor.

1.15.3 Upon completion of the service and for each visit, Contractor shall obtain a written report from each manufacturer on <u>every</u> service call with a time/record sheet recording the service performed and the results.

1.16 <u>Protective Devices</u>.

1.16.1 No equipment shall be operated until the associated control and protective devices have been calibrated, tested and demonstrated to be fully functional.

1.16.2 No protective or safety devices shall be de-rated or by-passed unless temporary disconnect protection is provided.

1.16.3 Adequate barriers, danger signs, area restrictions, and the like, all as appropriate to ensure the safety of personnel and equipment shall be provided and maintained by the Contractor. Barriers shall be placed to prevent persons from entering the vicinity of boiler draft fans, coal, ash handling and other conveyors, pulverizers, grinders, or any other processing or moving machinery during run-ins, and areas which have not been cleared for access in accordance with Section II of this Exhibit.

1.17 Operation Within Design Limits.

1.17.1 Equipment shall never be operated beyond the design limits specified by the manufacturer (vibration, load, number of starts, run-in duration and the like.)

1.17.2 NO EQUIPMENT SHALL BE ALLOWED TO OPERATE IN ANY SO-CALLED DESIGN MARGINS.

1.17.3 Run-in periods and speeds shall be maintained per the manufacturer's instructions and specifications until vibrations and temperatures stabilize. A temperature may be considered stable when three successive readings taken at 10 minute intervals do not vary by more than ± 3 percent.

1.17.4 Equipment experiencing unusual noise, temperatures, signs of instability or vibration or other characteristics which appear to exceed design limits or encroach upon so-called design margins shall be immediately shut down and secured.

1.18 Removal of Packing and Other Temporary Materials.

Before the commencement of tests, Contractor shall carefully check for and remove all temporary supports, bracing or other foreign objects in structures, vessels, ducts, piping, transformers,

machinery or in any other equipment in which such materials may have been installed prior to shipping or during construction. Contractor shall inspect for and repair any shipping damage before proceeding to test or run-in equipment.

1.19 <u>Certifications</u>.

Contractor shall obtain required use and/or occupancy certification and approvals for all plumbing, electrical, fire protection, elevators, cranes, structures, systems, material handling equipment required by regulations, codes and the specifications.

END OF SECTION

SECTION II

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Clearance Tagging Requirement and Procedures

2.1 Safety

2.1.1 Inspection, checking and testing impose additional risk to workers, along with the machinery and equipment and other property they are attending. Accordingly, in addition to the health and safety procedures required to be observed during the construction phase, Contractor shall also comply with the additional special requirements and procedures described in this section the purpose of which is to ensure that equipment, systems and areas are "cleared" for safe access. Violations of this procedure can result in injury to persons and damage to equipment and may be grounds for removal of offenders from the Site.

2.1.2 ALTHOUGH CLEARANCES ARE INTENDED TO CONVEY THAT EQUIPMENT, SYSTEMS AND AREAS HAVE BEEN DEACTIVATED, SUCH CLEARANCES DO NOT WARRANT OR GUARANTEE THAT NO HAZARDS EXIST. ACCORDINGLY, ALL APPROPRIATE SAFETY PRACTICES AND PRECAUTIONS SHALL CONTINUE TO BE TAKEN AND CAREFULLY OBSERVED AT ALL TIMES.

2.2 <u>Method/Coordination</u>

2.2.1 In general, clearances shall be communicated by the use of tags or labels attached to equipment, systems or areas designating them as "cleared" for access, entry, or upon which work may be performed. However, before beginning the tag program, and as specific procedures may differ on projects, Contractor's supervisory personnel shall confer with Covanta start-up staff to review and agree upon the procedures and details of the clearance program.

2.2.2 The purpose of tags or labels is to alert all persons that technicians and workers will be in the areas of this equipment.

2.2.3 NO EQUIPMENT IN THE AREA SHALL BE ENERGIZED, PRESSURIZED, STARTED UP OR OPERATED FOR ANY REASON WHILE THE TAGS ARE IN PLACE AND UNTIL THEY ARE RELEASED BY AUTHORIZED PERSONNEL.

2.2.4 Under no circumstances shall any part of a control circuit of any starter or breaker be energized if a Clearance tag is on that equipment. The only exception to this prohibition shall be to permit the temporary energization of a local control or control circuit with portable power; but then only (i) to the extent necessary to enable the circuit to be checked, (ii) an In-Test label is affixed as described in Section VI and (iii) the activity supervised at all times.

Tagging normally to be employed is designated as <u>Operational Clearance</u> and <u>Boundary Clearance</u> for general area access and <u>Craft Clearance</u> for access of Contractor workers.

2.2.5 Tags are required to be affixed at all points of danger, including circuit breakers, motor starters, valve switches, and controls, and any other switches, buttons, controls or devices of any kind which energize, pressurize, raise or lower temperature or activate machinery. Secondary points of isolation shall also be tagged with Boundary Clearance tags.

2.2.6 No craft, service organization or contractor shall work under Craft Clearance issued to another craft, service organization or contractor. All Craft Clearance must be released in an area prior to the release of the Operational Clearance for that area.

2.2.7 Specimen tags for Craft, Operational and Boundary Clearances are attached, others may be substituted or added during the coordination meetings for this procedure. Operational, Craft and Boundary tags shall use the same record reference numbers.

2.3 Administration.

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2.3.1 The Tagging procedure shall be administered by designated Covanta Start-up, Project and Existing Facility operating personnel. The Covanta start-up manager shall publish and maintain a list of construction and start-up personnel authorized to give the various Clearances, maintain the clearance logs, and authorize their release.

2.3.2 When a Clearance is requested, Covanta will review it, check its effect on operations to determine if it can be issued at that time, review the information on the tag for correctness and supervise placement.

2.3.3 After the Work has been completed, the Contractor shall notify Covanta, complete the release information on the tag and return it for verification to the Covanta start-up supervisor who shall log the status of the area or equipment, and supervise the release and removal of the tags.

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SEC	CTION III	

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Civil/Structural

3.1 All buildings, tanks, silos, hoppers, bunkers and all other structures including their foundations shall be thoroughly inspected, examined and tested for the proper quantity, quality, arrangement, surface, galvanizing, alignment, load, plumbness, fit, tightness, tension, connections (welds, bolting, studs, straps, fasteners, buttings with proper torquing of connectors) footings, pillings, structural members, (including shells, joints, beams, posts, pillars, joists, braces, purlins, rafters) platforms, ladders, railings, decking, walkways, rings, plates, grating, conduit and cable trays, covers, piping and piping supports, flanges, ducting, vents, nozzles, manholes, hatches, roofing, siding, drainage, and fire loops, sprinklers and extinguishers.

3.2 Incomplete, incorrect or damaged roadways, walkways, parking, curbing, fencing, backfilling, landscaping, grounds and earthwork and all underground pipe and conduit shall be completed or made good.

3.3.1 Oversprayed, unpainted, uncoated or rusty surfaces and equipment shall be addressed and corrected.

3.3.2 Areas of prepared surfaces that have become contaminated or show visible signs of rust shall be restored to the specified degree of cleanliness and profile prior to coating.

3.3.3 Any surface that was blast cleaned with compressed air containing oil or moisture shall be re-blasted and re-coated as required.

3.3.4.1 <u>NO LEAD, CHROMIUM OR MERCURY BASED PAINT OR OTHER COATINGS SHALL</u> BE USED.

3.3.5 Any coating that was spray-applied with compressed air containing oil or moisture shall be removed and re-coated.

3.3.6 While remedial work is being performed, the surrounding area and coatings shall be protected from damage and overspray. The same materials and procedures that were used to coat the surface shall be used for re-coating and touch-up unless agreed otherwise.

3.4 Repair or replace missing, damaged or leaking weatherproofing, insulation (including collars and banding and jackets, facings, mastics, adhesives) lagging, fireproofing, pipe blankets, flooring, masonry, refractories, mortar, carpentry, lighting, plumbing, fixtures, millwork, caulking, sealants, membranes, waterproofing, grout, siding, windows, doors, drywall, ceiling tiles, carpeting, louvers, and any special tools or maintenance stocks (if to be furnished by Contractor or its suppliers).

3.5 ALL INSULATION SHALL BE ASBESTOS FREE.

3.6 Close or fill-in openings and gaps in walls or partitions, (particularly where piping, electrical and other conduits enter and exit), hardware, glass and glazing, flooring, piping and partitions.

3.7 Balance, inspect and test the HVAC system, chillers, fans, ducting and controls and the like, in accordance with operating instructions and manuals which shall be provided to County and Covanta.

3.8 Check the proper and reliable operation and response of all alarms and security systems.

3.9 Check proper elevator functioning including speeds, safety devices and shutdowns. Obtain the necessary certifications and permits.

3.10

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<u>"DRAFT_CONTRACT"</u> Calibrate and have certified all scales in presence of the scale supplier and regulatory authority. Test results shall be sufficiently documented for Contractor to obtain the necessary approvals and certifications.

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SECTION IV

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Mechanical/Process

4.1 <u>Scope</u>

Inspect, check and test all mechanical and process equipment and systems including waste, ash and other material-handling equipment, scrubbers, baghouses, boiler, boiler cooling and feed water chemical feed and other water and water treatment systems, hoses, flue gas ductwork, fuel systems and burners, stokers, stack, compressors, condensers, heat recovery and exchangers, dust protectors and collectors, heaters, pumps, turbines, generators, headers, gears and reducers, tanks, filters, agitators, elevators, hoists and cranes, rails, ties, ballasts, piping, valves, supports, motors and other rotating equipment, storage vessels and facilities, silencers, fans, conveyors, dryers, cooling towers, strainers, manlifts and expansion joints.

4.2 <u>Test Procedure</u>

4.2.1 At least six (6) weeks prior, Contractor shall prepare for review with County and Covanta a detailed step-by-step test procedure (including test aids) based on the vendors manuals and other instructions, particularly with respect to cleaning and flushing of boilers, piping and process systems.

4.2.2 Prior to operational testing, all equipment shall be checked for proper lubrication. The initial filling or application of lubricants shall be provided by the Contractor.

4.3 <u>Standards, Codes and References</u>

4.3.1 Contractor's activities shall conform at all times to industry standards and code requirements, including Hydraulic Institute Standards (13th Edition, 1975); ASME Power Test Codes, PTC 8.2-1965 (centrifugal pumps), PTC 7.1-1962 (displacement pumps), PTC 9-1954 (displacement compressors, vacuum pumps and blowers), PTC 10-1965 (compressors and exhausters) and others as appropriate to the equipment under test.

4.3.2 Industry references and guides to be consulted include Buffalo Forge Co., Fan Engineering, 7th Edition, Chapter 11; NEMA Standard MG 1-20.53, 1969; Hydraulic Institute Standards, 13th Edition, 1975; Shock and Vibration Handbook, McGraw Hill, 2nd Edition, 1976 and others appropriate to equipment being tested.

4.4 <u>Test Equipment</u>

Test devices and equipment shall be appropriate for the activity and shall include differential and other similar pressure gauges, surface pyrometer or other temperature measuring devices, pitot tubes and manometers, tachometers, strobe lights, vibration measuring instruments (Mauldin Corporation, Model PMC-210), specialized test equipment and other devices specified in manufacturers manuals and instructions, vibration monitors with magnetic gap pickups (IRD Model 306), vibration Meters with shaft pickup adapters (Model 445M Probe), Bentley Nevada TK-8 Tunable Filter Vibration Meters (Model 5232-141) and all such other measurement devices appropriate to the equipment under test. Test equipment devices shall be continually checked for accuracy and proper calibration.

4.5 Vibration Testing - General

4.5.1 Equipment shall be set in normal operation mode. All drivers and shafts shall be tested under load where safe and practical. Belt tension and proper matching shall be checked under load where possible. Operating data shall be recorded.

4.5.2 The vibration displacement curve grafts attached to the exhibit provide the vibration criteria for centrifugal pumps, for clean liquids, and slurries and the axial and centrifugal fans (except

cooling tower fans). Special care must be taken to ensure that the proper curve is used. Vibration shall be measured against allowable limits. Limits shall not be extrapolated off-range and only readings below the curves are acceptable. Particular care shall be taken to avoid operation of equipment at or near critical levels.

4.5.3 UNACCEPTABLE VIBRATION LEVELS SHALL BE NOTED, LOGGED AND PROMPTLY REPORTED TO THE VENDOR FOR CORRECTION.

4.6 <u>Vibration Testing - Fans</u>

4.6.1 Check and adjust all fan assemblies for proper tip clearance, blade angle, motor amps, etc. UNDER NO CIRCUMSTANCES SHALL READINGS OR MEASUREMENTS BE TAKEN IN COOLING TOWER CELLS WHILE A FAN IS IN OPERATION.

4.6.2 When operating between 400 and 800 rpm, and as near to normal operating conditions as feasible, vibration displacement for Axial and Centrifugal Fans (except cooling tower fans) shall not exceed the level indicated in the appropriate Vibration Displacement Curve attached and the peak vibration velocity shall not exceed 0.10 inch per second.

4.6.3 Because of the low rotating speed of the cooling tower fans, it is not necessary to measure vibration velocity. Vibration displacement, however, shall not exceed 3.5 mils in any direction.

4.6.4 Using a remote magnetic pickup, cooling tower fan vibration readings shall be taken at the gear output shaft bearing housing, in two perpendicular directions. Motors associated with the equipment shall be treated as horizontal or vertical equipment and tested as described herein.

4.6.5 Fan vibration data shall be logged or recorded on the appropriate Data Sheet.

4.7 Vibration Testing - Pumps

4.7.1 Vibration displacement for Centrifugal Pumps handling Clean Liquids shall not exceed the level indicated in the appropriate Vibration Displacement Curve attached. When operating between 200 and 800 rpm and within plus or minus 10 percent of rated capacity, the peak vibration velocity shall not exceed 0.25 inch per second,

4.7.2 Readings of vibration levels shall be measured using (or assuming the presence) of clean liquids and slurry. Slurry make-up shall approximate a clear thick liquid sludge. Dirty liquids or liquids containing suspended materials will not constitute acceptable liquids or slurries.

4.7.3 Readings for Horizontal Pumps shall be taken with hand-held or magnetic vibration pickups at or as near as possible to each bearing housing and always on a solid surface.

4.7.4 Vibration displacement for Centrifugal Pumps handling slurries and clean liquids shall not exceed the level indicated in the appropriate Vibration Displacement Curve attached. The peak vibration velocity shall not exceed 0.25 inch per second, when operating between 60 and 3600 rpm, and within plus or minus 10 percent of rated capacity.

4.7.5 Pump equipment vibration data shall be recorded or logged on the appropriate Data Sheet.

4.8 Vibration Testing - Motors

4.8.1 The maximum allowable vibration displacement for electric motors operating at the indicated speeds is as follows:

RPM	ank to Deak Viburtian	Formatted: Header, Centered Formatted: Font: Courier, 14 pt, Bold
3000 and greater	1.0	
1500 to 2999	2.0	
1000 to 1499	2.5	
999 and under	3.0	

4.8.2 Peak vibration velocity shall not exceed 0.25 inch per second.

4.9 <u>Compressors</u>

4.9.1 Reciprocating, centrifugal and rotating compressors, and multi-stage steam turbines in mechanical drive service shall not have a peak-to-peak vibration displacement exceeding the lesser of 2.0 mils or the value determined from the following equation:

Peak-to-Peak Displacement = Square Root (1200/rpm)

4.9.2 The peak vibration velocity shall not exceed 0.25 inch per second.

4.9.3 Readings of friction-type sleeve bearings and radial shafts shall measure the relative motion between shaft and housing. A magnetic type pickup attached to the bearing housing shall be used. At least two axial readings shall be taken parallel to the rotating shaft. Measurements that may be influenced by adjacent equipment shall be carefully analyzed for error and should be avoided if possible. If a bearing is covered by plastic caps, the measurement shall be taken on the adjacent casing.

4.9.4 Measurements shall include two radial readings (horizontal, 90 apart) taken perpendicular to the rotating shaft and two axial readings taken parallel to the rotating shaft.

4.10 Vibration - HVAC

4.10.1 Vibration tests of belt-driven HVAC units mounted on isolating pads or suspended by vibration-isolating hangers, shall be measured independently of the supports and of each other. Measurements shall then be made on the frame of the isolating pads or supports. The equipment shall function in the normal mode. Motors associated with this equipment shall be treated as horizontal or vertical equipment and tested appropriately as required herein.

4.10.2 Equipment vibration data shall be compiled during initial unloaded/uncoupled runins of driven equipment. A separate entry on the Data Sheet shall be used for each operational configuration against which the readings are taken.

4.11 Welds - Piping and Structural

Welds shall be inspected and tested per the requirements of AWWA D-100 API 650, or NFPA 22 or other applicable codes and shall include vacuum testing, inspection of bottom welds, reinforcement plate welds, and the inspection and testing of tank shell and roof connections.

4.11.1 Such checks and inspections shall include pre-fabricated materials which were shop-welded. The shop shall provide inspection data to Contractor and County and Covanta.

4.11.2 All butt welds shall be full penetration (except as may be otherwise permitted) for branch connections, welded attachments and slip-on flanges. Welds shall be inspected, x-rayed or tested as required by code or specification. Proper fusion shall be confirmed. Welds containing cracks shall be immediately corrected and repaired. All welds shall be permanently marked with the welder's special identification mark

4.11.3 Welds shall be smooth and free of slag, porosity, excessive undercut and cracks. The final weld layer shall be free of coarse ripples, nonuniform bead patterns, high crowns and deep ridges. All arc strikes, starts, and stops shall be confined to the welding groove or shall be removed by grinding.

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4.11.4 Weld material shall meet the hardness requirements of code. Hardness testing shall be performed (or re-performed) after any post weld heat treatment. If a hardness test reveals a failure to meet acceptance criteria, the weld shall either be replaced, reheat treated and retested. Hardness readings shall be taken with a portable tester in accordance with ASTM A370.

4.11.5 Contractor shall provide heat treatment charts which record the temperature of each sensor during the entire period of heat treatment. Once the temperature exceeds 800□F the record shall include piping assembly number, weld joint or bend identification numbers, date, time, and identify the heat tester.

4.11.6 Radiographic reports shall be accomplished by the liquid penetrant magnetic particle examination record, piping assembly mark number, weld joint number, examination procedure and performance standard. Examination and inspection reports and radiographic film shall be given to County and Covanta, including that to be provided by fabrication shops for pre-fabricated materials.

4.11.7 All welds, mechanical joints, thickness transitions, and regions of high stress must be completely visible during system hydrotesting, excepting only shop-fabricated materials of underground service which have been coated and wrapped prior to shipment.

4.11.8 Procedures and acceptance standards shall be in accordance with the ASME Codes.

4.12 Boiler/Refractories

4.12.1 All refractory shall be dried and cured in accordance with the manufacturers' recommendations.

4.12.2 All boilers shall be boiled out in accordance with the manufacturers recommendations.

4.12.3 Contractor shall supply and install treated water, temporary piping pumps, wiring, recokers and equipment including donkey boilers, heat exchangers, hoses, and provide labor on 24-hour basis, for both the air and hot water refractory cure, boil out and chemical cleaning operations.

4.12.4 The boiler shall be thoroughly inspected for completeness and correctness of its installation before test. Contractor shall complete all prefire checks including dampers, soot blowers and other equipment for proper positioning and travel.

4.12.5 Contractor shall test for air and flue gas leakage, throughout the furnace, including casing, ductwork, expansion joints, etc., shall inspect and set pressure-relief and safety valves, and correct all deficiencies.

4.12.6 Contractor shall conduct hydrostatic pressure tests with heated test medium in accordance with codes, specifications, manufacturers' recommendations and Covanta's instructions.

4.12.7 Contractor shall plan for and cooperate with refractory cures hydro testing and initial firing performed by the boiler vendor.

4.12.8 Boiler contractor shall perform the initial firing, continually checking and making adjustments throughout the firing process.

4.13 <u>Water/Water Treatment</u>

4.13.1 All water systems including waste water and fire systems and the like shall be, by Contractor, thoroughly examined for completeness and correctness of installation and operation, making adjustments as necessary. Contractor shall furnish and install all chemicals including ion-exchange resins and inert bed material with verda support. A water consultant shall be retained by Contractor as required to advise and monitor this activity.

4.13.2 The fire protection system and equipment shall be, by Contractor, thoroughly flushed, checked and adjusted. Fire pumps shall be operated to check performance of the entire system.

4.13.3 Purify and test the potable water system.

4.14 Rotating Equipment

grouted.

4.14.1 All motors, fans, pumps, exhausters, compressors, blowers, motor valves, couplings, shafts, hydraulics shall be checked for proper setting, alignment, doweling, connection and stress. This equipment shall be rotated by hand or run-in on temporary power following the procedures set out in Section II in the various modes to confirm it is operating smoothly in accordance with manufacturers tolerances and instructions.

4.14.2 Connections and couplings shall be examined for abnormal stress and proper rotation by unhooking and visually checking the equipment, adjusting as necessary.

4.14.3 All base and sole plates shall be level checked and all bearing surfaces properly

4.14.4 All interlocks and other safety mechanisms shall be thoroughly checked and tested for reliability and all safety guards confirmed in place.

4.14.5 Fill and check the level of all lubricating reservoirs, chemicals, water and other fluids (including switchyard vessels). Lubricate wherever necessary or required in accordance with the manufacturers specifications. Lubrication information (tags) shall be permanently attached to the equipment for immediate reference. A complete lubrication manual shall be prepared before switchyard energization listing the manufacturers' recommended types and quantities for all equipment, including County and Covanta furnished equipment.

4.14.6 Inspect all shaft sleeves, bearings and packing glands for proper contact. Packing glands shall not be tightened to the point where there is a complete seal i.e. is no leakage from the package. A small amount of leakage is required to lubricate the packing. A complete shut-off will result in burned packing and scored shaft sleeves.

4.14.7 Check all seals and replace as necessary. All packing/ shaft seals shall be installed, inspected and tested as per manufacturers' instructions.

4.14.8 Scrape bearings where required to comply with manufacturers' contact requirements. County and Covanta shall be allowed to inspect the contact points before final assembly and capping of the bearing.

4.14.9 Check all anchor bolts and flanges for tightness, grouting and shims. Bolts shall be tightened only with calibrated torque wrenches. Overstressing must be avoided.

4.14.10 Check and stroke all valves (manual and motor-controlled) to confirm smooth operation. The valves should be power operated only when required for flushing and testing following the procedures set out in Section II. Check all gaskets and packing for leaks and replace where necessary. Attach permanent valve reference tags per specification and in accordance with the valve list or schedule.

4.14.11 ALL CHECKS, TESTS AND RESULTS SHALL BE RECORDED.

4.15 Condensers

Air-cooled condenser pressure tests shall be conducted by the ACC vendor, witnessed by the Contractor, County and Covanta. Covanta shall be provided with a list of pressure settings.

4.16 Shop Tested Equipment

Individual items of equipment which have been pressure (or otherwise) tested in the fabricator's shop such as shell and tube exchangers, air cooled exchangers, pumps, relief valves, will not require re-testing unless requested by County and Covanta. The testing and checking of such items shall, however, be included in the pressure and other testing of attendant piping and other systems. The shop test data shall be made available to Contractor, County and Covanta.

4.17 <u>Cooling Towers</u>

Check and make all preoperational adjustments to blade pitch, tip clearance, fan balancing, spray nozzle and cell flow. Perform an initial flush and corrosion pretreatment of circulating water and auxiliary cooling water systems. Repair any leakage. All basins shall be clean and trash screens clear.

4.18 <u>Heaters/Burners</u>

The burners and auxiliary equipment for fired heaters shall be pressure tested (including prefiring checks) in accordance with codes, regulations, specifications and manufacturers' instructions. Fuel lines shall be blown out, air tested and checked for cleanliness. Burner piping shall be disconnected, examined and repaired or serviced as necessary. The operation of all registers and dampers, and the position of indicators shall be checked. Contractor shall provide a service engineer available for technical advice during the start-up of this equipment.

4.19 Lubrication

The lube, seal and stoker hydraulics and cooling systems shall be charged with flushing oil. Leakage shall be promptly repaired. The lubrication, stoker hydraulics and cooling systems shall be purged and charged with the permanent operating oil or lubricants provided by County. Equipment shall then be operated to verify and check vibration, trip, governor and safety devices. Necessary adjustments and corrections shall be promptly made.

4.20 <u>Conveyor, Cranes, Hoists</u>

All moving equipment and systems including conveyors, trommels, cranes, grapples, elevators, lifts and hoists, roll-up doors, etc. shall be run-in tested and thoroughly checked. Contractor shall test and certify performance and lifting capacity in accordance with the manufacturer's instructions. Such testing shall require the assistance of the manufacturer's experts who shall also be required to certify as to functional operability. Contractor shall arrange for test weights and such assistance. Contractor shall align, lubricate, set and confirm limit switches for refuse cranes per vendor's instructions.

4.21 Turbine/Generators

Contractor shall completely review and check the project installation, setting and positioning of the turbine/generator, and shall prepare the equipment for start-up with lubrication and hydraulic flushing. Contractor shall supply, install and remove all temporary test piping, screens, valves, media and other equipment and shall cold check all hook-ups, alignments, couplings, overspeed trip settings and turbine drives. All such activity shall be in the presence and with the advice and oversight of the manufacturers service representatives.

4.22 Stokers

With the stoker supplier observing, Contractor shall check and test air infiltration equipment at the conveyors and other interfaces; align grates, clinker rolls, bars, grates and other stoker devices; hydrotest the hydraulic systems; flush and connect hydraulics making all adjustments; inspect and clean the air and flue gas ducts, check and ensure the efficiency of the overfire air systems; leak-test the feed chutes, check, inspect and test materials handling and associated systems and equipment for proper direction of movement and adequate clearances in all areas.

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4.23 Pipe Supports

Pipehangers, guides, expansion joints and other pipe support and in-line specialties shall be checked and examined for the presence of any temporary shipping and erection aids. Cold settings shall be checked and ready for service. Inspection and settings shall be documented.

END OF SECTION

SECTION V

HYDROSTATIC/PRESSURE TESTING

5.1 Piping System - Cleaning, Hydro and Flushing

5.1.1 All piping and fittings shall be chemically cleaned, pickled or wire brushed, and purged with an air or shot blasted on inner surfaces to remove sand, scale, dirt or other foreign matter. All areas of the systems or equipment, (e.g., bearings, gearboxes, reservoirs, tanks, piping, etc.) shall be flushed and purged.

5.1.2 Piping, inlet lines, pump suction, fan intake filters, ducting, compressor suction lines and the like shall be thoroughly cleaned and flushed with water and air and pressure tested for leakage and flow.

5.1.3 Cleaning and purging methods shall be reviewed with County and Covanta. Such testing shall be scheduled and performed in the presence of County and Covanta.

5.1.4 Fluids used in the cleaning and testing of stainless steel piping shall be free of chlorides and County and Covanta shall be advised of the fluids to be used. All inline components including control and relief valves, positive displacement and turbine meters and the like shall be either removed or isolated. Filters in compressor inlet lines shall be checked with temporary blinds, connections, piping, etc. installed where required. All strainers shall be continually changed until systems are clean. Suction, prime and vent lines equipment shall then be filled with appropriate fluids.

5.1.5 Extreme caution shall be exercised when running pumps at very high or very low flow rates. Pumps operated at reduced flows for extended periods will overheat while very high flow rates will cause overloading or cavitation. County and Covanta shall also be given a complete list of the correct design pressure settings.

5.1.6 For the flushing liquids, contractor shall provide storage vessels, heating equipment, pumps, temporary piping, valves, fittings and other necessary support. Temporary equipment shall be also thoroughly cleaned.

5.1.7 Instrumentation, control valves, flow nozzles, orifices and other inline devices shall be removed and connections broken, capped or plugged during the testing. Connections shall be hand-cleaned and returned to service only after the line cleaning is complete.

5.1.8 The flush shall be at the highest velocity obtainable without overloading the low pressure feedwater heaters and dearators. Contractor shall take care to insure that no contaminated water is used in this activity.

5.1.9 All cleaning except the final flush shall be routed through by-pass piping around equipment and control valves. Proper cleansing will have occurred at the point where the effluent and influent turbidities are approximate. All control valves, pipe and equipment shall be hand cleaned before final flush.

5.1.10 Ordinarily, there should be a minimal time lapse between flushing activity and the startup of the unit. However, if there is any significant delay, the system shall be protected against corrosion by one of the following methods:

Nitrogen blanketing of the shell sides of all feedwater heaters.

The complete filling of the system and tubes of all feedwater heaters with demineralized water containing 200 ppm hydrazine with ph adjusted to 9.5 to 10 with ammonia.

Systems shall be inspected daily to ensure that positive pressure is maintained and that no air has entered the system.

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Water chemistry shall be checked weekly and adjusted as required.

5.1.11 Once the piping system has been flushed, the entire system shall be further flushed with chemicals. Once the chemicals have been in the system long enough to react with oxides, the system shall be drained and a final rinse shall be performed to remove all traces of the chemical solution. Process equipment must be isolated from the chemicals during this activity. The system shall then be drained, filled with the process fluid and run sufficiently to assure that any entrained water has been removed. Chemicals and other cleaning fluids shall be disposed of in a safe and approved manner.

5.1.12 Welded joints in the underground piping which have not been shop tested and certified shall be left exposed (i.e. free of paint, dope and wrap) until testing and flushing has been completed. Only after final flushing shall the wrapping, coating, insulation and the like be completed.

5.1.13 All piping shall be cleaned and flushed as follows:

PIPE DESIGNATION**	STEAM	AIR	WATER*				ACID
ON FLOW DIAGRAM FLUSH			FLUSH*** BLOW		BLAST	FLUSH***	
SH, HRH, CRH			X				
SLH,SLB,SM			Х				
CB,SPH,VEH,FW,FWL			Х				
CF,CFH,DHH,DH,OL,DH	Х						
CC,CW,FP,SW,SO,SPH	Х						
LO,FO			х	Х			
	х						
AM,PR,VEH,PW,WC X							
PA,IA	x						

* Flush water temperature shall not be lower than 70 F and can include chemicals.

** The piping designations are typical and subject to change. County and Covanta will provide clarifications.

- *** High Velocity Flush.
- 5.2 Pressure Testing

5.2.1 Pressure testing of piping and related systems shall be in accordance with code, scheduled and coordinated with, and conducted in the presence of County and Covanta. Minimum test pressures shall be formulated from the design and temperatures given in the Engineer's Piping Class Summaries. Contractor shall conform to hydrostatic test requirements in Section 137.3 of ANSI B31.1 or as otherwise specified. Weld defects shall be repaired in accordance with ANSI B31.1, section 127.4.11 and ASME Power Boiler Code, Section I. Maximum test pressures shall not exceed code. Unless otherwise approved by County and Covanta, no testing shall be conducted if the piping temperature is below 50 GF.

5.2.2 All test gauges shall be calibrated and certified accurate by an independent authority. Gauge ranges shall be in a range of from 1/2 to 2 times the test pressure.

5.2.3 All joints (except where shop fabricated and certified) shall be accessible and shall not be finish painted, coated, insulated, back-filled or otherwise covered until the satisfactory completion of testing.

5.2.4 Instrumentation and equipment shall be either disconnected from the piping or blocked off during the test. Manual valves may be included within the test boundary provided that they will not be impacted by the (including the closure mechanism) test pressures.

5.2.5 Orifice plates which may interfere with filling, venting or draining shall be removed prior to testing.

5.2.6 Piping which has been removed to permit installation of test blinds shall be tested separately.

5.2.7 Piping with check valves shall have the test pressure applied on the up-stream side of the valve. Alternatively, the check valve internals may be removed to allow free passage of the test fluid.

5.2.8 Control valves shall not be subjected to pressure tests. Piping with block and bypass valves shall be tested by removing both types of valves and installing blind flanges with the by-pass valve kept open.

5.2.9 Except for magnetic flow meters, instruments including positive displacement meters, relief valves, rupture discs, level gauges, transmitters, controllers, pressure regulators, rotameters and the like, shall be removed during the test. In addition, the diaphragm connection on pressure balance control valves shall be removed during the test.

5.2.10 Subsequent to initial test pressurization but prior to leak checking, all high point vents shall be opened until air is vented and test fluid is observed in the system.

5.2.11 The welding of blinds, caps or other methods of isolation for testing purposes in or to lined piping or equipment is not permitted.

5.2.12 Test medium shall consist of demineralized or potable water at $50 \square F$ with a leachable chloride content of less than 250 PPM. An alternate approved inert fluid shall be used if the operating medium or piping material would be adversely affected by water. The use of demineralized water from the site shall require County and Covanta approval prior to each test.

5.2.13 Allowable test pressures shall be determined in accordance with and adjusted for design temperatures in accordance with code. For piping requiring special preparation or protection prior to start-up, (filling with inert gas or lubricating fluid), such preparations shall be carried out on completion of testing.

5.2.14 Test pressures shall be introduced by hand or by means of small power pumps, and shall be applied slowly and evenly. Air shall be vented from the system. Special care shall be taken to avoid excessive pressure build up or increase in ambient temperatures.

5.2.15 Subject to County and Covanta approval, low pressure systems may be tested at operating conditions in accordance with Paragraph 137.7 of ASME B31.1 by using the service fluid as the test medium and per code. When the pressure reaches 25 psig, it shall be increased gradually, providing sufficient time to allow the piping to equalize stress and to check for leaks.

5.2.16 Pneumatic testing is not normally recommended and shall be used only with concurrence of County and Covanta. If allowed, it shall conform to requirements of ASME B31.1 Paragraph 137.5.1.

5.2.17 Where a hydraulic test may be impractical, Duct work and atmospheric pressure drain piping shall be air tested, employing the pressures specified in the Piping Line Index.

5.2.18 No pressure test shall be required of open-ended vents, drains and similar piping. However, such piping shall be thoroughly checked by visual examination.

5.2.19 Flanged connections at points where blinds were inserted during pressure tests will not require additional tests after removal of the blinds. However, bolted or other connections shall be inspected thoroughly to assure tightness.

5.2.20 Test pressures may be applied to connecting pressure vessels, exchangers, and like equipment, in accordance with the applicable code and specified care shall be taken to avoid any over loads. Test pressures shall not exceed specifications or codes.

5.2.21 Vessels and associated equipment may be tested in conjunction with associated piping, provided that test pressure for the vessel does not exceed that for the associated piping. Vessels and equipment tested at required pressures different than for the piping shall be isolated and tested separately.

5.2.22 Special care shall be taken when heat exchangers are included in the test. Both tube and shell sides shall be pressurized to avoid overstressing of the tube sheets.

5.2.23 Test pressures shall be maintained for a minimum period of 10 minutes after the pressures have been stabilized. Examination for leakages shall be conducted during this period.

5.2.24 Test pressures on in-line valves shall be the same for both the upstream and downstream of piping. Where the test pressures is greater than allowable valve seat pressures, testing shall be made through the open valves. Control valves shall not be subjected to the pressure test.

5.2.25 Expansion joints shall be isolated or otherwise protected from the loads imposed by these tests unless they are specified as being fully capable of withstanding the load. Manufacturer's instructions shall be consulted.

5.2.26 All hangers and supports shall be properly adjusted and/or blocked or isolated as necessary to accommodate the additional loading imposed by the pressure testing.

5.2.27 System temperatures shall be maintained in excess of 70 F for the boiler external piping and in excess of 50 F for all other piping. Pipe and test media temperature shall be approximately equal.

5.2.28 Where valves are used as test boundaries, pressures shall not exceed the maximum allowable seat pressure as shall be determined from manufacturer's instructions and manuals. Valve seat leakage shall be permitted only up to the limitations set by MSS SP-61 or the specifications, whichever is less.

5.2.29 Relief valves shall be removed (preferable), blanked off or gagged as set down in the manufacturer's recommendations. In no event shall spring settings on a valve be changed without prior permission of the project engineers. Special relief valves able to withstand a pressure of 1-1/3 times the hydro test pressure shall be employed when the pressure is to be maintained for a period sufficient to encounter significant thermal expansion of entrapped fluids.

5.2.30 Pressure testing shall normally be performed after final flushing. When this is not practical, to avoid possible valve damage, alternative means shall be used to ensure system cleanliness

5.2.31 Testing of fire system piping shall be conducted in accordance with National Fire Protection Association requirements. Testing and final inspection of the fire protection system shall be witnessed by the County, Covanta, fire marshall and Covanta's insurance representatives.

5.2.32 After satisfactory completion of testing, all temporary connections, blinds, and similar items shall be removed and the system drained. Valves, orifice plates, expansion joints, and any piping which has been removed during the test shall be reinstalled.

5.2.33 If any portion of the installation fails to operate satisfactorily or any defects are disclosed by the test, repairs and adjustments shall be made promptly and the areas re-tested.

5.3. <u>Steam Piping - Blow-Down</u>

5.3.1 Prior to admitting steam to the turbine, the main steam piping shall be thoroughly "blown-out" on a cycle designed to completely remove mill scale, iron oxide, weld slag, sand and any other foreign matter. The cycle shall be repeated until the emerging steam is free of contaminants. There shall be sufficient intervals between each blow to permit the piping to cool. Three consecutive targets for each section of pipe shall be addressed. <u>Continuous</u> blow-down may be used only with the approval of County and Covanta. The schedule, number, duration, pressure, quantity and rate of the steam blowing shall be approved in advance by County and Covanta.

5.3.2 Contractor shall furnish temporary piping, motor operated steamblow valves and support aids adequate to prevent excessive stress on the permanent piping. Supports and permanent spring hangers shall be set and verified only when cold.

5.3.3 As steam blowing will be conducted around the clock, Contractor shall furnish and install silencers in the temporary piping to keep noise to permitted levels.

5.3.4 County and Covanta shall be advised as to the direction of exhausts and temporary piping shall be used to route exhausts to safe areas.

5.3.5 Contractor shall conform to hydrostatic test requirements in Section 137.3 of ANSI B31.1 or as otherwise specified. The test schedule shall be approved and witnessed by County and Covanta. Weld defects shall be repaired in accordance with ANSI B31.1, section 127.4.11 and ASME Power Boiler Code, Section I.

5.3.6 All areas of the systems or equipment, (e.g., bearings, gearboxes, reservoirs, tanks, piping, etc.) shall be flushed and purged.

END OF SECTION

SECTION VI

Electrical/In-Test

6.1 General

Employing only qualified electrical personnel, and in accordance with manufacturers' instructions and recommendations, codes, regulations, specification and NECA standards, Contractor shall check, inspect and functionally test on an integrated basis, all electrical, communication, lighting, and cable systems including conduit, connections, switchgear, motors, transformers, turbines, generators, circuits, power distribution, tie-ins, metering, and relay transmitters, substations, motor control centers, induction motors, power and control cable, variable frequency AC drivers, voltage units, stationary battery uninterruptable power supply system.

6.2 In-Test Labeling

6.2.1 To insure the safety of personnel and protection of equipment from damage, an <u>In-</u><u>Test</u> procedure in accordance with Attachments to this Exhibit shall be strictly followed, but shall <u>not</u> be implemented until all Craft and Boundary Clearance tags have been released per Section II. Only the Operational Clearance tag shall remain.

6.2.2 Except as specifically authorized and released by County and Covanta, Contractor's personnel shall not at any time start, stop or in any way operate any installed electrical equipment or device whether or not it has been accepted by County and Covanta.

6.2.3 Before equipment is energized for testing and only after all craft and boundary tags have been released; a special <u>In-Test</u> label (see attachment) shall be affixed by the start-up personnel to the Operational Clearance tag in the manner and procedure described in Section II and the Safety Clearance tags attached to this Exhibit. Only then shall Contractor proceed to test the equipment or system in an energized mode.

6.2.4 All testing shall be performed with the circuits and switches in the "Test Position". The positions identified on the manufacturer's switchgear circuit breaker plates or labels shall be the "Test Position" for testing both the closing and tripping of the breaker. The "Test Position" for 480-volt starters and equivalent devices shall be when and at the power leads are lifted on the load side terminals.

6.2.5 Insulation on all wiring (except the lighting cable) shall be checked by megohmeter and a high pot test performed on all cable 2000V and above.

6.2.6 Testing of all motor and transformer windings from phase-to-phase and phase-toground (including wiring from the power source) shall be performed prior to making wiring terminations. Grounding systems shall be tested to determine and confirm the continuity of connections and resistance.

6.2.7 All electrical gear shall be charged with oil or other media as required. Tests shall be made of oil samples from all oil- insulated transformers larger than 100 kilovolt amperes.

6.2.8 Switchgear and circuit breaker relays shall be set for proper coordination and function. All connections for phase sequence, polarity and motor rotation shall be checked and tested in the presence of County and Covanta. Contractor shall functionally test and adjust all switchgear, motor control equipment, generators, annunciators, control panels, circuit breaker and the like. Contractor shall provide up-to-date circuit breaker schedules for both the temporary and permanent control panels.

6.2.9 The lighting systems, including the emergency system, shall be tested for intensity and adequacy until confirmed fully operational. Fixtures shall be connected to temporary power supplies for test purposes.

6.2.10 Limited energization of components and circuits to functionally test electrical circuits and instrumentation will be necessary. However, such energization shall be permitted only in

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6.2.11 Certifications and Contractor shall obtain and deliver all required electrical/building permits to County and Covanta.

END OF SECTION

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INSTRUMENTATION AND CONTROLS

7.1 General

7.1.1 Employing only qualified personnel, Contractor shall inspect, test and checkout all instrumentation, communications and controls systems for operability, correctness of power source, action response, including wiring connections, signals, air, water and fuel supply, alarms, transmitters, controllers, analyzers, relays, valve positioners, circuits from transmitters through remote receivers, control valves through and from controllers, remote stations, switches, transducers, regulators, panels, flowmeters, gauges, thermometers, DCS and CEM systems, thermowells, monitors, actuators, NOx and mercury systems, and thermocouples. Testing shall be in accordance with manufacturer's recommendations and instructions, codes, regulations and industry standards.

7.1.2 A specification check shall be made of each instrument, its scale, signal range, and the like. Deficiencies or missing instruments shall be reported immediately to County and Covanta.

7.1.3 Contractor shall monitor control elements of all areas; set actions and control modes of all instrumentation.

7.1.4 Contractor shall stroke control valves and confirm they are fully operational and that the flow direction is correct.

7.1.5 Communications systems shall be checked and tested on an integrated basis, including instrumentation and controls for automatic emergency and manual shutdown.

7.2 Protection/Tagging

7.2.1 All safety and relief valves shall be properly tagged and pre-set at installation.

7.2.2 Prior to making connections, air shall be blown through all tubing and piping using cool, oil-free filtered air to instrument components.

7.2.3 All instruments and controls shall be carefully protected from stress and damage during hydrostatic, pressure or any other form of testing. Contractor shall either remove them, or blind off (or close valves) lines leading to instruments during such testing or flushing. Contractor shall be responsible for any damage for failure to take proper precautions.

7.3 Tests of Pneumatic Controls

7.3.1 All process instrumentation sensing lines shall be pressure tested to 1.5 times the design pressure and all pneumatic lines blown clean using dry, filtered, oil free air.

7.3.2 Transmission control system(s) shall be pressurized and energized by opening and checking each connection at the primary sensor and the final regulator.

7.3.3 Control modes shall never be set on automatic while a process unit is being charged and brought on line.

7.3.4 Pneumatic control loops shall be carefully checked and examined.

7.3.5 Pneumatic and hydraulic control circuits shall be leak- tested in accordance with the IA Recommended Practice 7.1 Pneumatic Control Circuit Pressure Test (latest edition).

7.4 Calibrations

7.4.1 Contractor shall calibrate each instrument to (and within) the manufacturers' published accuracy parameters. A two-point calibration check will be sufficient for bourdon-tube pressure gages and bimetal thermometers. Calibration shall be per Specification SC-318.

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7.4.2 Contractor shall submit a calibration report for each instrument, signed and dated by the person performing the calibration or functional check and shall affix a waterproof calibration sticker on the inside of each instrument case in indelible inks, giving the date, calibrated range and checker's initials. If any instrument cannot be properly calibrated or adjusted, a report of its condition shall be made in writing to County and Covanta and schedule for replacement.

7.4.3 If sealing fluids are employed or if a permanent liquid leg is imposed on any instrument, the calibration shall be adjusted to offset or accommodate the effect or impact.

7.4.4 Temperature baths shall be used to check temperature instruments, with calibration at a minimum three points at 0%, mid-range and 100% of scale range.

7.4.5 A precision decade box and resistors per manufacturers' instructions shall be used to calibrate resistance "bulb type" temperature instruments. Final calibration shall require that both the temperature element and transmitter be calibrated together as an integrated system, with a constant temperature bath as noted above.

7.4.6 All on-off and throttling valves shall be stroked completely through their operating ranges, calibrated and adjusted per specification and manufacturers' instructions.

7.4.7 Alarm, interlock and limit switches shall be calibrated to the accuracies and/or differentials per manufacturers' specification and manufacturer's instructions.

7.4.8 All switches shall be set at the specified values checked and tested for proper response and action.

7.4.9 Analog and digital loop tests, checking function and range on all devices and control circuits shall be made and the results recorded.

7.4.10 Circuit breaker schedules for both temporary and permanent electrical panels and recorder charts shall be prepared and delivered to County and Covanta.

7.4.11 Loop checks of instrument circuits shall be performed to ensure that wiring is correct and correctly terminated, that all shielding is properly grounded, and that the circuits are complete.

7.4.12 All control instruments shall be checked for to verify that the output signal functions and adjusts for step input changes.

7.4.13 Level switches shall be checked for proper mounting and for deadband or reset range. If cage-type level switches shall be prominently and permanently marked to indicate the ON-OFF and other relevant switch points.

7.4.14 Verify that all instruments are calibrated to verify that the output or visual indication is in the correct range span. Span checks shall be 0, 25, 50, 75 and 100 percent of range. Operational adjustments (zero, offset, suppression, etc.) shall be included in the calibration data/documentation.

7.4.15 All pressure gauges shall be checked with a deadweight tester at 25, 50, 75 and 100 percent of the specified range in both the increasing and decreasing direction.

7.4.16 Operational checks and set point adjustments for pressure switches shall be performed using a deadweight tester. Set points shall be adjusted for contact closure as required on increase or decrease of pressure.

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7.4.17 Control valves shall be stroked to verify full travel, as specified on the valve nameplate, and adjustment shall be made, if required, to attain full travel. Valve positioners shall be checked for proper operation and limit switches shall be checked and set. Solenoid valve operation shall be verified after electrical connections are completed and energized.

7.4.18 Process sensing lines shall be hydrotested to the same pressure as the process flow lines with which they are associated. All instruments connected to a process sensing line shall have their shutoff valves closed and their vents and drains open or entirely disconnected during hydrostatic testing. No instrumentation shall be hydro tested.

7.4.19 Calibration of all temperature instruments shall be done by oven or bath as designated for calibration purposes. The instruments shall be checked for operation (and calibration adjustments made as required) through the total specified range.

7.4.20 All thermocouples shall be checked for continuity.

7.4.21 Documentation shall be maintained and provided to verify testing which shall identify, by tag number, the instrument, tests, results and date of test documentation shall be certified if required.

END OF SECTION

System/Component;

•	Turnover Form
	Turnover Tag
	Exception Form
earance	

Safety Cle

Work Flow Chart
Operational Clearance Tag
Boundary Tag
Craft Clearance Tag
"In Test" Electrical Procedure
"In-Test" Label

Vibration Displacement Curves;

Centrifugal Pumps/Clean Liquid

Vertical or Horizontal Non-Clog Pumps

Centrifugal and Axial Fans

Data Sheets:

Mechanical Equipment
Coupling Alignment
Pump Equipment Vibration
Fan Equipment Vibration

Systems/Equipment List

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"DRAFT CONTRACT" EXHIBIT M

FORM OF CONTRACTOR'S AFFIDAVIT, WAIVER OF LIENS AND GENERAL RELEASE

STATE OF:

COUNTY OF:

	lersigned	

____ says that he is the

_____ (hereinafter referred to as "Contractor") and that he is familiar with

the facts herein stated.

The Contractor has furnished all of the designs, engineering, technology, services, materials, labor, tools, equipment, construction facilities required by the Contract and everything of every sort, and has performed all Work required by the Contract, the same having been entered into with County on the _____ day of _____, 20___ pertaining to the ______ in Lee County, Florida.

Contractor certifies that it has fully paid or has made provision for payment for all technical services, materials, labor, tools, equipment, and construction facilities, and everything of every sort furnished by Contractor, or by its subcontractor<u>Subcontractors</u>, vendors or materialmen, upon the premises and furnished for the Project.

Contractor agrees and undertakes to indemnify County and Covanta and their respective parents, Affiliate Companies, agents, successors, or assigns, including the officers, directors, officials and employees of the indemnitees affiliate companies and saved harmless at all times from and against any claims, demands, losses, damages, costs and expenses on any account whatsoever by any subcontractorSubcontractor, vendor and materialman including but not limited to costs and charges for the goods, materials, fitments and equipments brought to the Site whether for incorporation in the Project including subcontract work or the execution thereof or otherwise or in regard to the services rendered for or towards the execution of the Work including subcontractorSubcontractor work and from and against any negligence of the Contractor or subcontractorSubcontractors or their agents, workmen, and servants and from and against any misuse by them of any construction plant or temporary works for the purposes of the execution of the Work including subcontract work.

In consideration of payments made, or to be made, Contractor for itself, its subcontractor<u>Subcontractor</u>s, suppliers and materialmen hereby waives and releases any and all liens, lien rights and claims whatsoever, whether known or unknown against the Project, Existing Facility, County, Covanta and their successors and assigns, and their premises or property with respect to Contractor's Work other than such claims, if any, that may (with the consent of County) be specifically excepted from the terms of this Affidavit/Waiver and Release.

Contractor represents that no other person or party has any right to a lien, claim or charge on account of any Work performed or for material furnished to Contractor for the Work and agrees to indemnify and hold harmless the releasees from any and all claims or demands of laborers, subcontractor<u>Subcontractor</u>s, materialmen and suppliers of Contractor.

This Affidavit, Waiver and Release does not relieve Contractor from any of its continuing indemnity, confidentiality, warranty and guaranty obligations, either directly or derivatively through its Contract with County, or under any other Contract provision intended to survive completion of Contractor's Work or termination thereof.

By:

Title: Date:

Sworn to me and subscribed in my Presence this _____ day of _____ 20

Notary Public

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of

My commissions expires:

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EXHIBIT N FORM OF PAYMENT BOND LABOR/MATERIAL AND PERFORMANCE BOND

BY THIS BOND we,

whose principal place of business (registered office) is at

(hereinafter called "the Contractor") and

whose principal place of business (registered office) is at

(hereinafter called "the Surety") are held and firmly bound unto

Lee County, Florida (hereinafter called "County") and Covanta Lee, Inc. (hereinafter called "Covanta") in the sum of \$ for the payment of which sum the Contractor and the Sureties bind themselves and their assigns jointly and severally by these presents.

Signed and sealed with our respective seals and dated this

day of 2000

WHEREAS the Contractor by an Agreement made between County of the one part and the Contractor of the other part has entered into a Contract (hereinafter called "the Contract") to design, manufacture, deliver, erect and test certain Work and correct defects therein as mentioned in and in conformity with the provisions of the Contract, which Contract is by reference made a part hereof.

PERFORMANCE AND COMPLETION

NOW THE CONDITION OF THIS BOND is such that if the Contractor shall duly perform and observe all the terms, provisions, conditions and stipulations of the Contract on the Contractor's part to be performed and observed according to the true purport, intent and meaning thereof or if on default by the Contractor the Surety shall satisfy and discharge the damages sustained by County thereby up to the amount of the above written Bond then this obligation shall be null and void but otherwise shall be and remain in full force and effect. No alteration in terms of the Contract or in the extent or nature of the Work to be designed, manufactured, delivered, erected and tested thereunder or in respect of the obligations to correct defects thereunder and no allowance of time by County under the Contract nor any forbearance or forgiveness in or in respect of any matter or thing concerning the Contract on the part of the County shall in any way release the Surety from liability under the Bond.

Whenever Contractor shall be, and shall be declared by County to be in default under the Contract, County having performed County's obligations thereunder, the Surety may promptly remedy the default whatever it may be, or shall promptly at the election of County -

- 1. Perform the Contract in accordance with its terms and conditions, or
- 2. Obtain a bid or bids for submission to County for performing the Contract in accordance with its terms and conditions, and upon mutual determination by County and Surety of the lowest responsible bidder, arrange for a contract between such bidder and County and make available as Work progresses (even though there should be a default or a succession of defaults under the contract or contracts for performance arranged under this paragraph) sufficient funds to pay the cost of performance but not exceeding, including other costs and damages for which the Surety may be liable to County hereunder, the amount set forth in the first paragraph hereof.
- Surety's liability under this Bond shall include the obligation to pay County all damages for delay which are recoverable by County under the terms of the Contract.

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PAYMENT				Formatted: Font: Courier, 14 pt,
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NOW, THE FURTHER CONDITION OF TH	•			
all claimants as hereinafter defined for all	labor services and material L	ised or reasonably required for use in the	3	

performance of all of its obligations under the Contract then this obligation shall be void as respects such payments by Contractor; otherwise it shall remain in full force and effect, subject, however, to the following conditions: 1. A claimant is defined as one having a direct contract with Contractor or any subcontractor Subcontractor or sub-contractor of the Contractor for labor material or services used

- A claimant is defined as one having a direct contract with Contractor or any subcontractor<u>Subcontractor</u> or sub-contractor of the Contractor for labor, material, or services used or reasonably required for use in the performance of any of the Contractor's obligations under the Contract, including rental of equipment directly applicable to the Contract.
- 2. The above named Contractor and Surety hereby jointly and severally agree with County that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work services or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. County and Covanta shall be completely indemnified with respect to such suits or judgments nor shall County or Covanta be liable to Contractor or surety for the payment of any costs or expenses of any such suit.

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