GAINESVILLE REGIONAL UTILITIES

CITY OF GAINESVILLE, FLORIDA

Solicitation No. 2019-061

Issue Date: March 26,2019

Questions Due: April 4, 2019

Due Date @ 2:00 p.m. April 30, 2019

Request for Proposal

Energy Supply Electronic Logs

Purchasing Representative:
Name: Jessie C. Moseley, CPPB
Title: Procurement Specialist III
Phone: 352-393-1252
Email: MoseleyJC@GRU.com

Gainesville Regional Utilities
301 S.E. 4th Avenue
Gainesville, FL 32601

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INSTRUCTIONS

1.0 DEFINITION OF TERMS FOR INSTRUCTIONS.

- Addendum/Addenda: Written or graphic document(s) issued prior to the Response due date, which make additions, deletions, or revisions to the solicitation or contract documents.
- Agreement: A written Contract between two or more Parties. “Contract” and “Agreement” are synonymous.
- Best and Final Offer (BAFO): The final proposal submitted after competitive negotiations are completed that contains the Responders most favorable terms.
- Bid: The written response to a Solicitation.
- Due Date: The date the response is due.
- Non–Responsive: A response that does not meet the material requirements of the solicitation.
- Redacted: The censoring of part of a Response.
- Respondent: An individual or business entity that submits a response to a Solicitation.
- Response: A written document submitted by a Respondent in reply to Solicitation.
- Responsive: A response that conforms in all material respects to the requirements set forth in the Solicitation.
- Solicitation: A written document issued by an agency to obtain information or pricing for goods and/or services. May also be referred to as an Invitation to Bid, Request for Proposal, Request for Quotation, or Request for Statement of Qualifications.
- Work: Activity involving mental or physical effort done in order to achieve a purpose or result requested in the scope.

2.0 PRE-BID OR PRE-PROPOSAL MEETING.

A meeting will not be held.

3.0 EXAMINATION OF SOLICITATION DOCUMENTS AND WORK SITE.

3.1 Prior to responding to the Solicitation, Respondents are responsible for the following: (a) examining the Solicitation thoroughly, (b) if applicable, visiting the work site to become familiar with local conditions that may affect the cost, progress, performance of furnishing the Work, (c) considering federal, state and local laws and regulations that may impact or affect cost, progress, performance or furnishing of the Work, (d) studying and carefully correlating Respondent’s observations with the Solicitation, and (e) notifying the Purchasing Representative of all conflicts, errors or discrepancies in the Solicitation.

3.2 Respondents are expected to become fully informed as to the requirements of the Specifications and failure to do so will be at their own risk. Respondents cannot expect to secure relief on the plea of error.

3.3 A Respondent who is aggrieved in connection with the specifications of this Solicitation may protest in writing to Utilities Purchasing at least seven (7) business days prior to the Response due date.

4.0 INTERPRETATIONS AND ADDENDA.

4.1 All questions about the meaning or intent of the Solicitation are to be directed to the Purchasing Representative, unless stated otherwise in the Solicitation. Interpretations or clarifications considered necessary in response to such questions will be issued by Addenda sent to all parties recorded as having received the Solicitation. Questions received less than seven (7) business days prior to the Response due date/time may not be answered by the Purchasing Representative. Only questions answered by formal written Addenda will be

binding. Oral and other interpretations or clarifications that are not memorized by formal written Addenda will be without legal effect.

4.2 Addenda may also be issued to modify the Solicitation as deemed advisable by the Purchasing Representative.

4.3 Addenda issued by GRU prior to the Solicitation due date/time are considered binding as if written into the original Solicitation. Respondents are responsible for ensuring that all addenda have been received prior to submitting their Response.

5.0 RESPONSE SUBMITTALS.

The following information is required with the Response:
Failure to provide the following information may be cause for the response to be deemed non-responsive:

- ☐ Pricing Response Form
- ☐ Respondent's Certification
- ☐ Drug Free Workplace Certification
- ☐ Subcontractor Information Form
- ☐ Sample Template used to create User Manuals
- ☐ Sample Manual for Infrastructure and Application Management
- ☐ If small business enterprise (SBE) or service disabled veteran enterprise (SDVE), provide evidence that you are certified by the City of Gainesville Equal Opportunity Department (EO) in order to receive the preference.
- ☐ If local business, provide Business Tax Receipt and Zoning Compliance Permit with the City of Gainesville in order to receive the preference.

6.0 RESPONSE PREPARATION.

6.1 The Pricing Response Form is included in the Solicitation and should be used to submit pricing information, providing a price for all items listed on the form, unless noted otherwise.

6.2 All blanks on the Respondent's Certification Form must be legibly completed in ink (computer printed, typed or handwritten).

6.3 A Response submitted by a corporation must be executed in the corporate name by the president, a vice-president, or other corporate representative and accompanied by a document showing authorization of such person's authority. Include the physical address and state of incorporation. A Response submitted by a partnership must be executed in the partnership name and signed by a partner, whose title must appear under the signature, and the physical address of the partnership must be shown below the signature.

6.4 The names of individuals included on the Respondent's Certification Form must be legibly printed below signatures (computer printed, typed or handwritten).

6.5 Respondent must acknowledge receipt of all addenda using the space provided on the Respondent's Certification Form.

6.6 Costs for developing a response to the Solicitation are the sole obligation of the Respondent.

6.7 Respondent's pricing must include applicable taxes on items purchased or manufactured by Respondent for the project. GRU is exempt from Florida sales taxes for certain purchases. A "Consumer's Certificate of Exemption" is available at www.gru.com .

6.8 Respondents are encouraged to use environmentally sustainable practices in response to the Solicitation when possible. This may include providing double-sided copies, minimal use of plastic covers, binders, tabs or dividers, etc.

7.0 PRICE.

7.1 The price stated on the Pricing Response Form is firm. Any additional charges that were not included in the Response will not be paid by GRU unless approved in writing by an authorized GRU representative. Subsequent to contract formation, pricing inconsistencies on invoices may be grounds to cancel the contract.

7.2 If the Respondent offers discounted pricing, such as prompt payment discounts or volume discounts, it must be clearly stated and explained on the Pricing Response Form. Such discounts, if applicable, will not be used in determining award of the Solicitation.

8.0 DEVIATIONS FROM SPECIFICATIONS.

8.1 Any deviation from this Solicitation must be provided and explained in detail with the Response. Deviations must be explained on a separate page labeled "Clarifications and Exceptions" and included with the Response. Each clarification and exception must correspond to the specific referenced section in the Solicitation. Otherwise, the Response will be considered in strict compliance with the Solicitation and the selected Respondent will be held accountable for compliance with the Specifications.

8.2 GRU reserves the right to waive clarifications and exceptions to the Solicitation if determined by GRU to be in GRU's best interest.

9.0 DISTRIBUTION OF INFORMATION

9.1 GRU will begin posting and distributing information pertaining to its procurement solicitations on DemandStar, effective immediately. Vendors must register with DemandStar to:

- Access procurement documents and related information.
- Receive automatic and instant notifications of government opportunities.
- Download solicitation documents and specifications online.
- Submit your bids and proposals online.
- See all the forms and documents you need to complete in one place.
- Receive and respond to government requests for quotes immediately.
- Automatic notification of awards.

9.2 For more information about DemandStar, visit GRU.com.

9.3 It is the responsibility of the vendor to regularly monitor DemandStar. Properly registered vendors can expect to receive automatic notification of solicitations for bids, proposals, and price quotes by participating public purchasing entities. Vendor failure to retrieve available, required procurement information and include the appropriate documentation and information in solicitation responses may result in disqualification.

10.0 SOLICITATION RESPONSE.

10.1 **Response must be in the possession of Utilities Purchasing by 2:00 p.m. on the due date**. Possession is defined as being uploaded into DemandStar prior to the 2:00 p.m. deadline. Late submissions will not be accepted.

10.2 Responses will be publicly opened at the time and place indicated in the Solicitation and will be available for inspection upon notice of award or intended Award, or within thirty (30) calendar days after the opening of Responses, whichever occurs first. Prices may be read at the public Solicitation opening at the sole discretion of Utilities Purchasing.

10.3 The Respondent's Certification Form must be submitted with the Response. If required, a Bid Bond and other documents must be provided with the Response. If a Bid Bond is required by the Solicitation and not included the response will be deemed non-responsive.

10.4 A "Non-Submittal" form has been provided for those who choose not to participate in the Solicitation. This form can be submitted in DemandStar or emailed to the Purchasing Representative.

11.0 MODIFICATION OR WITHDRAWAL OF A RESPONSE TO A SOLICITATION.

11.1 Changes to a vendor's bid submittals in DemandStar can be made up to the deadline date for the bid submittal.

11.2 After responses have been opened, corrections to the response are permitted only to the extent that (1) Respondent can show by clear and convincing evidence that there was a material and substantial mistake in the preparation of its Response; (2) the nature of the mistake is evident; and (3) the intended pricing is evident.

12.0 BID BOND.

A Bid Bond is not required.

13.0 EVALUATION PROCEDURE AND CRITERIA

13.1 Proposals will be evaluated by a Selection Committee of GRU employees who will independently read, review, and evaluate each Proposal.

Responses will be evaluated based on the criteria listed in 13.3 below.

Upon completion of the initial evaluation, the Selection Committee will rank the Proposals and Proposers will be notified of the ranking. At this point, the Selection Committee may conduct interviews with one (1) or more of the top ranked Proposers or the Selection Committee may recommend a Contract award on the basis of initial Proposals without further clarification, discussions, or negotiations. Therefore, initial Proposals should contain the Respondent's best terms and pricing. GRU will then recommend award to the best evaluated, responsive, responsible Respondent.

If interviews are necessary, one (1) or more of the top ranked Respondents will be notified of the time, date and method for which the interview will be conducted. Respondents will be given ample time to make arrangements to either be present physically or be given an alternative method for participating in the interview process. Alternative methods are but not limited to web conferencing and conference calls as determined by GRU. Upon completion of interviews, GRU will finalize the ranking of the Proposals and recommend award to the best evaluated, responsive, responsible Respondent.

13.2 THE Selection Committee may use references to clarify and verify information in proposals and interviews, if conducted, which may affect the rating. The Selection Committee reserves the right to contact references other than those included in the submittal.

13.3 Submittals will be evaluated based on the following criteria provided in order of importance:

EVALUATION CRITERIA	MAXIMUM POINTS
Qualifications and Experience	30
Approach to Project	30
Pricing	25
Referrals	10
Local Preference; small business and/or Disabled Veteran Preference	5
TOTAL POINTS	**100**

A. **Qualifications and Experience:** (30 points)
Provide a narrative which profiles the background, experience, business philosophy and qualifications of the Respondent. Attach a listing of Respondent's recent implementations of Electronic Logs and an executive summary of all current/anticipated projects for the remainder 2019.

B. **Approach to Project:** (30 points)

i. Solution. Provide a narrative that demonstrates how the Respondent's proposed approach will meet the goals and objectives outlined in this RFP (Attachment 3). This should include an overview/summary highlighting capabilities, limitations, and ability to adapt to new technologies/business needs. Further, advantages of this approach should also be explained. Clarity of the proposed solution is the aim, and therefore, use of product boilerplate and marketing releases is strongly discouraged.

ii. Management. Provide a brief description of how Respondent proposes to successfully manage this project. Include a description of how the project team will be structured, its roles and responsibilities, location within the company's organizational framework and chain of command. Brief résumés of staff/consultants to be assigned to this project along with their responsibilities are to be included in this section. Indicate the specific individual who would serve as the day-to-day contact and be responsible for meeting the deliverables of this project and where they would be located.

iii. Since Contractor staff experience and knowledge are a vital component of project success, GRU expects and requires that résumés submitted are for staff that will actually be assigned to the project. GRU reserves the right to request a substitution of personnel.

iv. Timeline. Provide a timeline for the project including customization (if necessary), functionality testing, training, and implementation up to the point of acceptance. For purposes of this submittal use a start date of approximately June 24, 2019.

C. **Pricing:** (25 points)

i. Pricing Response Form. The price proposal is a presentation of the Respondent's total offering price including the estimated cost for providing each component of the requirements. Respondent must use the prescribed format for the price proposal provided in the attached PRICING RESPONSE FORM. The Respondent must provide a proposal with a maximum cost for the project based on the project as described herein. Any additional recommendations and services or options may

be included as additions to the project on an optional basis. These optional items must be priced separately as an attachment to this Form.

ii. Milestones. In addition to the payment terms set forth in the General Conditions, GRU acknowledges Respondent may require progress payments; therefore a payment schedule may be negotiated. All payments will be tied to deliverables. Typically GRU will not accept more than 10% assigned to the first deliverable or less than 20% to the last deliverable. Respondent should attach their preferred payment schedule with clearly defined milestones if this payment method is desired.

D. **Referrals:** (10 points)
Provide three (3) referrals, each for a separate entity, as follows: Referred clients should be using the applications/services proposed and preferably be entities with similar operations (utilities). All referrals shall be recent (within the past five (5) years) and be verifiable. Referred clients should be able to attest to the firm's knowledge, quality of work, working relationship, flexibility, and ability to meet budget constraints. Each referral should include current information for the following: Client's name, address, contact person, contact Email and phone #, how long they have been a client, and which applications/services are used. [Unverifiable or unsatisfactory references may result in Respondent being deemed non-responsive or non-responsible.]

E. **Local Preference; Small Business and/or Disabled Veteran Preference:** (5 points)
If claiming Local Preference in accordance with the City of Gainesville ordinance, respondent must provide a copy of the business tax receipt. (See Instructions Section 5.0.)
If claiming Small Business or Disabled Veteran Preference in accordance with the City of Gainesville Resolution #150616, respondent must provide proof that Respondent meets one of the following:
Small Business Enterprise (SBE): Independently owned with a net worth of not more than five million dollars and employs 200 or fewer permanent full-time employees.
Service-Disabled Veteran Enterprise (SDVE): At least 51% owned and managed by a veteran who has been certified as a service-disabled veteran by the Florida Department of Management Services or other agency.

13.4 SELECTION PROCESS AND RECOMMENDATION - It is anticipated that the evaluation committee will short-list Respondents based on their written proposal and send those short-listed an invitation to present their solution. GRU reserves the right to waive the interview/presentation requirement should it be deemed unnecessary.

The written evaluation (100 points as detailed in Section 13.3 above) will determine the short-list.

13.5 NEGOTIATIONS - The City reserves the right to enter into contract negotiations with the top ranked Respondent. If the City and the top ranked Respondent cannot negotiate a successful contract, the City may terminate said negotiations and begin negotiations with the next top ranked Respondent. This process may continue until a contract has been executed or all Respondents have been rejected. No Respondent shall have any rights against the City arising from such negotiations.

14.0 SCHEDULE OF RFP EVENTS

Dates of events proposed are subject to change.

RFP Issue Date	March 26, 2019
Last day for questions	April 4, 2019

Anticipated Posting of Answers to Submitted Questions		April 10, 2019
RFP Response due date/time		**April 30, 2019 @ 2:00 p.m. E.T.**
Evaluation of the Proposals	(Week of)	May 6, 2019
Interviews		TBD if necessary
Intent to Award Issued *	(Anticipated week of)	June 24, 2019

* Intent to Award will change if Interviews are scheduled

15.0 TERMS OF AWARD.

15.1 Award will be made to the best evaluated Respondent(s) for Response(s) based on **(Qualification and Experience (30 points), Approach to Project (30 Points), Pricing (25 Points), Referral (10 Points) and Local Perference; small business and/or Disabled Veteran Preference (5 Points))** for each individual line item, or any combination of line items, as GRU determines to be in its best interest.

15.2 GRU reserves the right to reject any and all Responses, or any part thereof, to waive any and all informalities or irregularities, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional Responses. A responsible Respondent and any selected subcontractors, suppliers, other persons, and/or organizations proposed to perform or furnish the Work have the capacity in all respects to fully perform the Contract requirements and the experience, integrity, reliability, capacity, facilities, equipment, and credit to ensure good faith performance, such capacity and responsibility to be determined solely by GRU. GRU may conduct such investigation as GRU deems necessary to establish the responsibility, qualifications and financial ability of Respondent(s), proposed subcontractors, material suppliers, individuals, or entities to perform the Work in accordance with the Contract. Such information may include, but shall not be limited to, current financial statements, bank records, verifications of availability of equipment and personnel and past performance records.

15.3 Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

15.4 If the Contract is awarded, GRU will give the successful Respondent a Notice of Intent to Award within sixty (60) calendar days after the Solicitation due date. All Responses must remain valid for sixty (60) calendar days from the Solicitation due date.

15.5 When GRU gives a Notice of Award to the successful Respondent, it will be accompanied by the required number of unsigned counterparts of the Contract (or Purchase Order, as applicable) with all attachments. Within fifteen (15) calendar days thereafter, Respondent must sign and deliver the required number of counterparts of the Contract, attachments, and required Bonds, if applicable. GRU will ultimately provide a fully signed counterpart to the Respondent.

15.6 Failure on the part of the successful Respondent to execute a Contract within fifteen (15) calendar days after the notice of acceptance may be just cause for annulment of award.

15.7 GRU may then accept the Response of the next lowest, responsive, responsible Respondent or re-advertise the Solicitation. If the next lowest, responsive, responsible Response is accepted, this acceptance will bind such Respondent as though it was the original successful Respondent.

15.8 Protests in respect to the intended award must be filed within three (3) calendar days of notice for purchases that do not require prior approval of the City Commission, and within seven (7) calendar days for purchases that require prior approval of the City Commission. It is the Respondent's duty to be informed of the intended award and GRU's protest procedures.

16.0 PUBLIC ENTITY CRIMES/DEBARMENT/SUSPENSION/TERMINATION.

16.1 Pursuant to Chapter 287.133(2)(a) of the Florida Statutes, "A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid, proposal, or reply on a contract to provide any goods or services to a public entity; may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals or replies on leases of real property to a public entity; may not be awarded or perform work as contractor, supplier, subcontractor, or consultant under a contract with any public entity; and may not transact business with any public entity in excess of the threshold amount provided in sec. 287.017, for Category Two for a period of 36 months following the date of being placed on the convicted vendor list."

16.2 Respondent is responsible for compliance with current policies regarding debarment / suspension / termination which have been issued by the Utilities Purchasing Division.

16.3 The Respondent certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this Solicitation by any governmental department or agency.

17.0 DISCLOSURE, CONFIDENTIALITY AND PUBLIC RECORDS.

17.1 Florida has a very broad public records law. By entering into an agreement with GRU, the Respondent acknowledges that it will comply with the Florida Public Records Act (*Chapter 119, Florida Statutes*). Failure to comply with the Florida Public Records Act, including failure to provide a public record upon request, is a breach of the Contract between GRU and Respondent. GRU may pursue all remedies for breach of this agreement. Responses to this Solicitation upon receipt by GRU become public records subject to the provisions of *Chapter 119*, *Florida Statutes*. Should the Respondent believe that any portion or all of its response is exempt from the Florida Public Records Act; the Response should clearly assert such exemption and the specific legal authority for the asserted exemption.

17.2 Responses to this Solicitation are public records and will be available for inspection after such time as an award is recommended or within thirty (30) calendar days after the Solicitation due date, whichever occurs first in time.

18.0 CONFIDENTIAL INFORMATION.

Upon receipt by GRU, responses to this Solicitation become public records subject to the provisions of Chapter 119 of the Florida Statutes, Florida's Public Records Law. If Respondent believes that any portion of the Response constitutes a trade secret pursuant to the Florida Statutes or is otherwise exempt from Florida's Public Records Law, Respondent should clearly identify the specific sections of the response for which confidentiality is claimed, and provide specific legal authority of the asserted exemption. Any portion of the Response that Respondent asserts qualify for exemption from Chapter 119, must be submitted in a separate envelope and clearly identified as "trade secret" or otherwise "exempt from the Florida Public Records Law with Respondent's firm name and the Response number marked on the outside of the envelope. In the event that GRU determines that any portion of the Response (initially claimed by the Respondent to be exempt) do not qualify as such, the Respondent will be contacted and will have the opportunity to waive their claim to confidentiality. Please be aware that the designation of an item as "exempt" or a "trade secret" by Respondent, and the refusal to disclose any materials submitted to GRU, may be challenged in court. By your designation of material in your Response as "exempt" or a "trade secret", Respondent agrees to indemnify and hold harmless the City, GRU, its elected officials, and employees for any award to a plaintiff for damages, costs or attorneys' fees and for costs attorneys' fees incurred by GRU by reason of any legal action challenging Respondent's designation of "exempt" or "trade secret" and GRU's refusal to disclose.

19.0 LOBBYING.

To ensure fair consideration and consistent and accurate dissemination of information for all proposers, the City prohibits communication to or with any department, employee, or agent evaluating or considering the proposals during the submission process, except as authorized by the contact person. During the blackout period as defined in Florida Statutes Chapter 287.57 (23), except as pursuant to an authorized appeal, no person may lobby, as defined herein, on behalf of a competing party in a particular procurement process, City officials or employees except the purchasing designated staff contact in the purchasing division. Violation of this provision shall result in disqualification of the party on whose behalf the lobbying occurred. Lobbying means when any natural person, for compensation, seeks to influence the governmental decision-making, to encourage the passage, defeat or modification of any proposal, recommendation or decision by City officials and employees, except as authorized by procurement documents.

20.0 BLACKOUT PERIOD.

Pursuant to Chapter 287.057 (23), Florida Statutes, Respondents to this solicitation or persons acting on their behalf may not contact, between the release of the solicitation and the end of the 72-hour period following the agency posting the notice of intended award, excluding Saturdays, Sundays, and state holidays, any employee or officer of the executive or legislative branch concerning any aspect of this solicitation, except in writing to the procurement officer or as provided in the solicitation documents. Violation of this provision may be grounds for rejecting a response.

21.0 COLLUSION.

21.1 Only one response from any individual, firm, corporation, organization or agency under the same or different name will be considered for this Solicitation. Submission of more than one response may result in the rejection of all responses from the Respondent.

21.2 Respondent, by signing the Respondent's Certification Form, declares that the Response is made without any previous understanding, agreement, or connections with any persons, firms, or corporations responding on the same items and that it is in all respects fair and in good faith without any outside control, collusion or fraud. A non-exclusive manufacturer/distributor relationship does not, in and of itself, constitute a prior understanding, agreement, connection or collusion between Responders.

21.3 By responding to the Solicitation, the Respondent acknowledges that it has not offered or given any gift or compensation to any GRU officer or employee to secure favorable treatment with respect to being awarded this Contract.

22.0 SMALL BUSINESS ENTERPRISE (SBE).

22.1 Independently owned with a net worth of not more than five million dollars and employs 200 or fewer permanent full-time employees.

22.2 A small or service-disabled veteran business, as certified by the City of Gainesville equal opportunity department (EO) http://www.cityofgainesville.org/OfficeofEqualOpportunity.aspx, will be given a preference of 5% of the total price not to exceed $25,000, when all of the following apply:

(a) Purchase is anticipated to be greater than $50,000;
(b) Award is based on evaluation criteria other than to the lowest responsive and responsible bidder;
(c) The certified small or service-disabled veteran business being evaluated did not receive a Local Preference; and

(d) The preference is not prohibited by law.

23.0 LOCAL PREFERENCE.

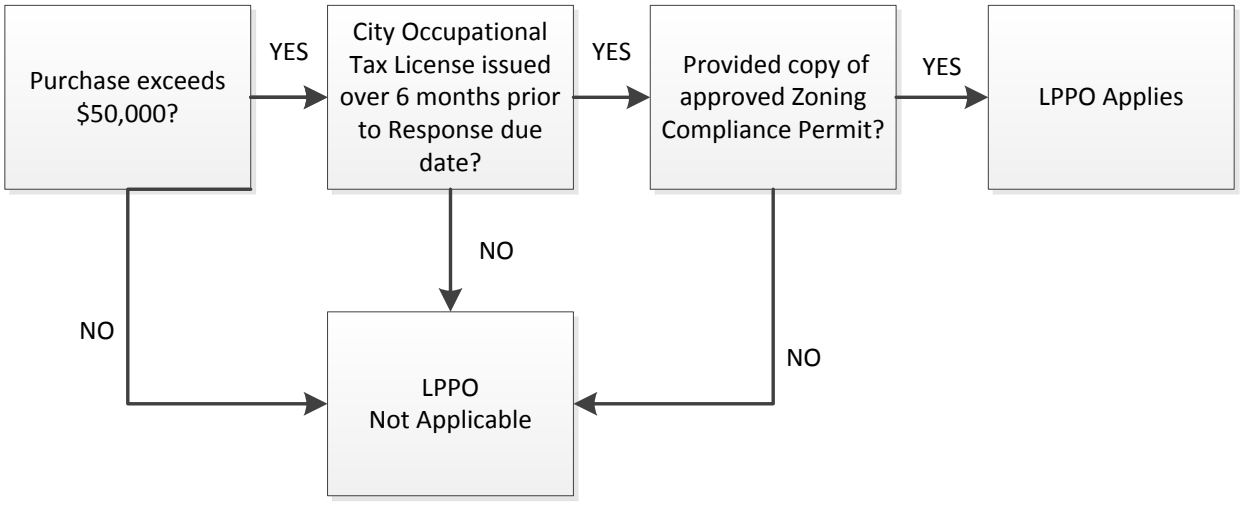
The Local Preference Ordinance applies to Solicitations for goods or services estimated to exceed $50,000.

In solicitation of, or letting contracts for procurement of, supplies, materials, equipment and services, as described in the purchasing policies, the City Commission, or other purchasing authority, may give a preference to local businesses in making such purchase or awarding such contract in an amount not to exceed five percent of the local business' total price, and in any event the cost differential should not exceed $25,000.

A "local business" means the Respondent has a valid business tax receipt, issued by the City of Gainesville at least six months prior to Response due date, to do business in said locality that authorizes the business to provide the goods, services, or construction services to be purchased, and a physical business address located within the limits of said locality, in an area zoned for the conduct of such business, from which the business operates or performs business on a day-to-day basis. Post office boxes are not verifiable and cannot be used for the purpose of establishing said physical address. In order to be eligible for local preference, the Respondent must provide a copy of the business tax receipt. The ordinance can be found at www.cityofgainesville.org. A Local Preference Decision Tree is attached.

LOCAL PREFERENCE POLICY ORDINANCE DECISION TREE

While not all encompassing, the following is provided as a guideline for determining whether the City of Gainesville Local Preference Policy Ordinance (LPPO) applies to solicitation responses submitted to the City. LPPO applies only to new solicitations. Respondents are advised to review the entire text of the Local Preference Policy Ordinance. CONTRACTOR is advised to review the entire text of the LPPO at www.cityofgainesville.org.



DEBARMENT/SUSPENSION/TERMINATION

Debarment/Suspension. The purchasing representative is authorized to suspend a vendor from consideration for award of contracts if there is probable cause to believe that the vendor has engaged in activity which might lead to debarment. The suspension shall be for a period not to exceed three months. After reasonable notice to the vendor involved and reasonable opportunity for that vendor to be heard, the purchasing representative, after consulting with the City Attorney, is authorized to debar a vendor for cause from consideration for award of contracts. The debarment shall be for a period of not more than three years. The causes for debarment include:

(a) Conviction for commission of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of such contract or subcontract, within five years of a proposed award;

(b) Conviction under State or Federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which currently, seriously, and directly affects responsibility as a City contractor, within five years of a proposed award;

(c) Conviction under state or federal antitrust statutes arising out of the submission of bids or proposals, within five years of a proposed award;

(d) Violation of contract provisions, as set forth below, of a character which is regarded by the purchasing representative to be so serious as to justify debarment action, within five years of a proposed award:

  (I) Deliberate failure without good cause to perform in accordance with the specifications or within the time limit provided in the contract; or

  (II) A record of failure to perform or of unsatisfactory performance in accordance with the terms of one or more contracts; provided that failure to perform or unsatisfactory performance caused by acts beyond the control of the contractor shall not be considered to be a basis for debarment;

(e) For any provision of, or offer, gift or agreement to provide, any gratuity, kickback or offer of employment to any current or former City employee in connection with any decision, approval, disapproval, recommendation, or preparation of any part of a program requirement or a purchase requisition, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or application, request for ruling, determination, claim or controversy or other particular matter, pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal, within three years of a proposed award;

(f) For any payment, gratuity, kickback or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor or any person associated therewith, as an inducement for the award of a subcontract or order, within three years of a proposed award;

(g) For retaining a person or soliciting or securing a GRU contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, except for retention of bona fide employees or bona fide established commercial selling agencies for the purpose of securing business, within three years of a proposed award;

(h) During the period of a contract with GRU, employing, or offering employment to, any current City employee participating directly or indirectly in the procurement process, within three years of a proposed award;

(i) Any other cause the purchasing representative determines to be so serious and compelling as to affect responsibility as a City contractor, including debarment by another governmental entity for any cause listed in this Section;

(j) The foregoing is supplemental to any applicable provisions of F.S. 287.133, as amended. In the event of any conflict between this provision and the requirements of said statute, the statute shall prevail.

REJECTION OF BIDS/TERMINATION OF CONTRACT

Previously solicited and/or accepted bids may be rejected or acceptance revoked prior to beginning of performance upon discovery by GRU that the bidder or its affiliates have committed any act which would have been cause for debarment, or were on the convicted vendor list prepared under the provisions of F.S. 287.133, as amended, at or prior to the acceptance of the bid.

If GRU discovers, after a contract is awarded and performance has begun, that the bidder or its affiliates have committed any act subsequent to or prior to award or acceptance which would have been cause for debarment had it been discovered prior to award or acceptance, GRU may consider such to be a material breach of the contract and such shall constitute cause for termination of the contract.

FORMS

SOLICITATION NUMBER: *2019-061* FOR: *ENERGY SUPPLY ELECTRONIC LOGS*

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CONTRACT SAMPLE

CONTRACT BETWEEN THE CITY OF GAINESVILLE, d/b/a GAINESVILLE REGIONAL UTILITIES, AND COMPANY NAME FOR ENERGY SUPPLY ELECTRONIC LOGS

THIS CONTRACT is made and entered into this _____ day of _____, _____, by and between the CITY OF GAINESVILLE, a Florida municipal corporation d/b/a GAINESVILLE REGIONAL UTILITIES ("GRU"), with offices located at 301 S.E. 4th Avenue, Gainesville, Florida 32601 and _____ ("_____ "), a _____ corporation, with its principal place of business at _____, individually referred to as "Party" or collectively as "Parties", respectively.

WHEREAS, GRU requires _____; and

WHEREAS, GRU issued a Solicitation on _____ for _____; and

WHEREAS, _____ submitted a Response dated _____, to provide _____; and

WHEREAS, GRU desires to enter into a Contract for the services described herein.

NOW, THEREFORE, in consideration of the covenants contained herein, the Parties agree to the following:

1. _____ shall _____
2. GRU shall pay to _____ for the faithful performance of this Contract. Adjustments to price may be requested by the _____ at least sixty (60) calendar days prior to the anniversary date of this Contract each year. Any negotiated price changes shall become effective on the anniversary date of that calendar year. _____ shall provide documentation for any such price increase and the price increase shall not exceed the Producer's Price Index (PPI) for the product during the previous twelve calendar months as published by the U.S. Department of Labor, Bureau of Labor Statistics.

TERM OF AGREEMENT.

1. The term of this Contract shall be commence on execution and terminate on_____.

2. This Contract may be extended for _____, upon mutual agreement of the Parties.

3. Beyond the extensions described above. This Contract may be extended for an additional six (6) months to allow for completion of a new agreement between the Parties.

IN WITNESS WHEREOF, the Parties hereto have executed this Contract on the date first above written in two (2) counterparts, each of which shall without proof or accounting for the other counterparts be deemed an original contract.

COMPANY NAME

BY: _____
Name
Title

CITY OF GAINESVILLE d/b/a
GAINESVILLE REGIONAL UTILITIES

BY: _____
Name
Title

Approved as to form and legality:

_____
Lisa C. Bennett
Senior Assistant City Attorney

Procurement Representative:

_____
Jessie C. Moseley, CPPB
Procurement Specialist III

SOLICITATION NUMBER: *2019-061* FOR: *ENERGY SUPPLY ELECTRONIC LOGS*

RESPONDENT'S CERTIFICATION

NAME OF CORPORATION, PARTNERSHIP, OR INDIVIDUAL: _____

PHYSICAL ADDRESS: _____

FEDERAL IDENTIFICATION #: _____ STATE OF INCORPORATION: _____ (Seal)

I have carefully reviewed this Solicitation including the scope, submission requirements, general information, and the evaluation and award process.

I acknowledge receipt and incorporation of the following addenda, and the cost, if any, of such revisions has been included in the pricing provided. **Addenda _____ through _____ acknowledged** (if applicable).

I am a small business enterprise (SBE) or service disabled veteran enterprise (SDVE) certified with the City of Gainesville Equal Opportunity Department (http://www.cityofgainesville.org/OfficeofEqualOpportunity.aspx). ☐ YES ☐ NO

I am a local business requesting Local Preference (include Business Tax Receipt and Zoning Compliance Permit) ☐ YES ☐ NO

The Living Wage Ordinance applies ☐ YES ☐ NO If yes, additional costs in response price $_____

I further acknowledge that: ☐ **Response is in full compliance with the specifications**; or ☐ Response is in full compliance with the specifications **except** as specifically stated and explained in detail on sheets attached hereto and labeled "Clarifications and Exceptions".

I hereby propose to provide the goods/services requested in this Solicitation. I agree to hold pricing for at least **60** calendar days from the Solicitation due date. I agree that GRU's terms and conditions herein take precedence over any conflicting terms and conditions submitted for GRU's consideration, and agree to abide by all conditions of this Solicitation.

I certify that all information contained in this Response is truthful to the best of my knowledge and belief. I further certify that I am duly authorized to execute and submit this Response on behalf of the organization as its agent and that the organization is ready, willing and able to perform if awarded.

I further certify that this Response is made without prior understanding, agreement, connection, discussion, or collusion with any other person, company or corporation submitting an offer for the same product or service; no officer, employee or agent of GRU owns or will benefit more than 5% from award of this Solicitation; and the undersigned executed this Respondent's Certification with full knowledge and understanding of the matters therein contained.

_____		RESPONDENT'S CONTACT (for additional information)
AUTHORIZED SIGNATURE	DATE	
_____	_____	_____
PRINT NAME	TITLE	NAME
_____	_____	_____
TELEPHONE NUMBER	FAX NUMBER	TITLE
_____		_____
E-MAIL ADDRESS		PHONE
_____		_____
WEBSITE		E-MAIL ADDRESS

If Respondent is not an individual, include authorization for the above individual to sign on behalf of the organization.

DRUG-FREE WORKPLACE CERTIFICATION FORM

Preference may be given to a business that certifies that it has implemented a drug-free workplace program. Pursuant to Section 287.087, Florida Statutes, whenever two or more competitive solicitations that are equal with respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a response received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie responses will be followed if none of the tied providers has a drug free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.

3. Give each employee engaged in providing the commodities or contractual services that are under proposal a copy of the statement specified in Subsection (1).

4. In the statement specified in Subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893, Florida Statutes, or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) days after such conviction.

5. Impose a sanction on any employee who is so convicted or require the satisfactory participation in a drug abuse assistance or rehabilitation program as such is available in the employee's community.

6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of applicable laws, rules and regulations.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

_____ _____

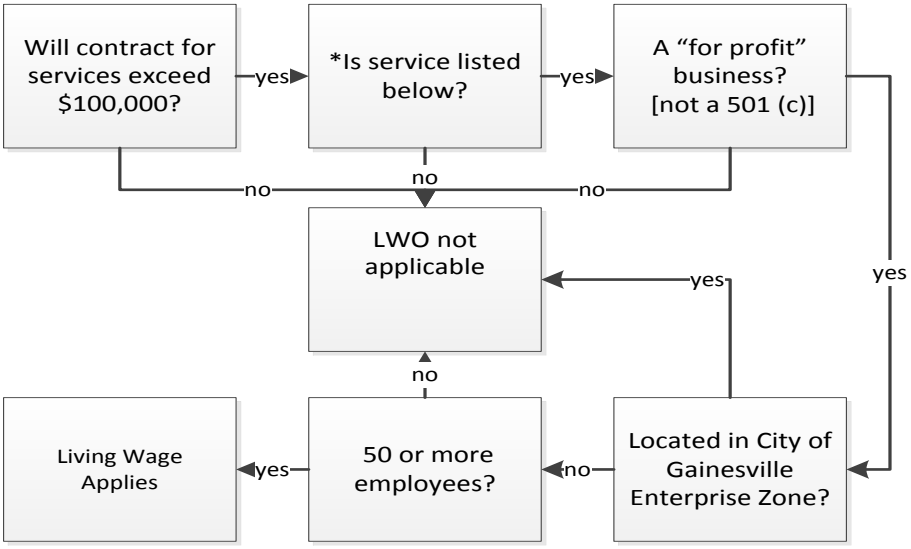
CORPORATION, PARTNERSHIP, OR INDIVIDUAL DATE

_____

AUTHORIZED SIGNATURE

LIVING WAGE ORDINANCE DECISION TREE

While not all encompassing, the following is provided as a guideline for CONTRACTORs in determining whether the City of Gainesville Living Wage Ordinance (LWO) applies to their firm in the performance of specified service contracts for covered services* with GRU. CONTRACTOR is advised to review the entire text of the LWO at www.cityofgainesville.org .



***Covered Services**: food preparation and/or distribution; custodial/cleaning; refuse removal; maintenance and repair; recycling; parking services; painting/refinishing; printing and reproduction services; landscaping/grounds maintenance; agricultural/forestry services; and construction services

(Use the flow chart and information above to help complete the remainder of the form below)

_____ Living Wage Ordinance as amended does not apply

Reason for Exemption:

_____Service will not exceed $100,000

_____Not a covered service

_____Company is not for profit

_____Company is located in Enterprise Zone

_____Company employs less than 50 persons

_____ Living Wage Ordinance as amended applies

NOTE: If CONTRACTOR has stated Living Wage Ordinance as amended does not apply and it is later determined that Living Wage Ordinance as amended does apply, CONTRACTOR will be required to comply with the provision of the City of Gainesville's living wage requirements, as applicable, without any adjustment to the Response price.

PRICING RESPONSE FORM

NOTE: Form to be **submitted in a separate sealed envelope** included with the Solicitation package.

1) **Implementation and Customization** $_____

Estimated time: _____at a rate of $_____ per _____

2) **User Training** (on-site train the trainer acceptable) $_____

Estimated time: _____at a rate of $_____ per _____

3) **Travel and Expenses** $_____

Based on _____ round trip flights from _____and _____nights hotel

4) **Electronic Log Software** $_____

Estimated time: _____at a rate of $_____ per _____

TOTAL PRICE (SCORING WILL BE BASED ON TOTAL PRICE) $_____

LIST ANY ADDITIONAL OR OPTIONAL SERVICES PRODUCTS LIST ON SEPARATE PAGE.

NOTE: If desired, attach milestone payment schedule for consideration.

AUTHORIZED SIGNATURE	DATE	RESPONDENT'S CONTACT (for additional information)
PRINT NAME	TITLE	NAME
TELEPHONE NUMBER	FAX NUMBER	TITLE
E-MAIL ADDRESS		PHONE
WEBSITE		E-MAIL ADDRESS

If Respondent is not an individual, include authorization for the above individual to sign on behalf of the organization.

SUBCONTRACTOR INFORMATION FORM

List any subcontractors that will be used for the Work along with the goods or services to be provided. If the subcontractor is a small or minority-owned business, check the boxes that apply. The selected prime CONTRACTOR will be asked to provide the actual subcontractor spend amount at a later date.

Small Business Enterprise (SBE): Independently owned with a net worth of not more than five million dollars and employs 200 or fewer permanent full-time employees.

Minority Business Enterprise (MBE): 51% owned and managed by a minority. African-American, Asian-American, Hispanic-American, Native-American, or American women owned.

Service-Disabled Veteran Enterprise (SDVE): At least 51% owned and managed by a veteran who has been certified as a service-disabled veteran by the Florida Department of Management Services or other agency.

Subcontractor Name	Goods or Service to be provided	Business Type		
		SBE	MBE	SDVE

NON SUBMITTAL FORM

TO: Gainesville Regional Utilities Purchasing Department
301 S.E. 4th Avenue, Gainesville, Florida 32601

Fax: (352) 334-2989 **Email: purchasing@gru.com**

BUSINESS: _____

ADDRESS: _____

CONTACT: _____

PHONE: _____

EMAIL: _____

DATE: _____

Business declines to respond to the referenced Solicitation for the following reason(s):

_____ Do not offer product or service or product specified.

_____ Schedule conflict or unavailability.

_____ Insufficient time to respond to the Solicitation.

_____ Unable to meet specifications.

_____ Unable to meet the insurance requirements.

_____ Unable to meet bond requirements.

_____ Not interested at this time.

_____ Other _____

Please consider business for future solicitations: yes ___ no ___

Please consider business on solicitations for these products/services:

_____

Comments:_____

_____

ATTACHMENT 1
GENERAL TERMS AND CONDITIONS

1.0 DEFINITIONS.

- Agreement: A written Contract between two or more Parties. "Contract" and "Agreement" are synonymous.
- Deliverable: The completion of a milestone or the accomplishment of a task associated with the Work.
- Free on Board (FOB) Destination: The CONTRACTOR is responsible for delivery of materials to a specified delivery point. The risks of loss are borne by the seller or consignee. Title passes when delivery is received by the buyer at destination. Seller has total responsibility until shipment is delivered.
- Specification: A description of the physical or functional characteristics of goods or services as defined in the Solicitation.
- Work: Activity involving effort done in order to achieve a purpose or result requested in the scope.

2.0 COMPLIANCE WITH REFERENCED SPECIFICATIONS.

All Work, materials, systems, or operations specified by reference to standard trade or manufacturer's published specifications shall comply with the requirements, except as modified by this Contract. The specifications used must be the latest published edition that is in effect on the effective date of this Contract unless a particular edition is specified. In the event of a conflict, the specifications that contain the more stringent requirements will govern.

3.0 CHANGE ORDERS.

GRU shall pay CONTRACTOR for the Work at the price[s] stated in this Contract. No additional payment will be made to CONTRACTOR except for additional Work or materials stated on a valid change order, and issued by GRU prior to the performance of the added Work or delivery of additional materials. A change order may be issued without invalidating the Contract, if (1) made in writing, (2) signed by the authorized representative(s), and (3) accepted by CONTRACTOR. Such change shall include the following: change orders that constitute changes (1) the general scope of Work, (2) the schedule, (3) administrative procedures not affecting the conditions of the Contract, or (4) the Contract price.

4.0 NOTICES.

Notices to CONTRACTOR shall be deemed to have been properly sent when electronically or physically delivered to CONTRACTOR. Notices to GRU are deemed to have been properly sent when delivered to Utilities Purchasing, 301 SE 4th Avenue, Gainesville, Florida 32601 or e-mailed to purchasing@gru.com and GRU acknowledges receipt of the email.

5.0 PAYMENT.

5.1 Invoicing.
CONTRACTOR is responsible for invoicing GRU for Work performed pursuant to this Contract. Itemized invoices shall include the following information (if applicable): Contract number, Purchase Order number, item number, job number, description of supplies or services, quantities, unit prices, Work location, GRU Project Representative, job start date, job completion date or other pertinent information. Itemized invoice(s) must be mailed to Gainesville Regional Utilities, Accounts Payable, P.O. Box 147118, Station A-27, Gainesville, FL 32164-7118 or faxed to 352-334-2964 or e-mailed to accountspayable@gru.com.

5.2 Receipting Report for Services.
An itemized receipting report for services must be provided to the GRU Project Representative prior to invoicing which includes the number of hours and labor rates by job title, overhead, authorized per diem or travel expenses, and other charges. Receipting reports shall be used by the Project Representative to verify the services rendered.

5.3 Payment Terms.
Unless otherwise agreed upon in writing, GRU's payment terms are net thirty (30) days from receipt of correct invoice. CONTRACTOR shall not submit more than one invoice per thirty-day period. Any delay in receiving invoices, or error and omissions, will be considered just cause for delaying or withholding payment. Invoices for partially completed Work may be allowed with GRU's prior approval. All partial

invoices must be clearly identified as such on the invoice. Any charges or fees will be governed by current Florida Statutes.

5.4 Lien Release.
Before the final acceptance of the Work and payment by GRU, CONTRACTOR shall furnish to GRU an affidavit and final waiver that all claims for labor and materials employed or used in the construction of said Work have been settled and no legal claim can be filed against GRU for such labor and materials. If such evidence is not furnished to GRU, such amounts as may be necessary to meet the unsatisfied claims may be retained from monies due to CONTRACTOR under this Contract until the liability has been discharged.

5.5 Final Payment/Acceptance**.**
The acceptance by CONTRACTOR of final payment due on termination of the Contract shall constitute a full and complete release of GRU from any and all claims, demands and causes of action whatsoever which CONTRACTOR, its successors or assigns have or may have against GRU under the provisions of this Contract.

6.0 COMPLIANCE WITH LAWS AND REGULATIONS.

All City, County, State and Federal laws, regulations and/or ordinances shall be strictly observed. CONTRACTOR is responsible for taking all precautions necessary to protect life and property.

7.0 GOVERNING LAW, VENUE, ATTORNEY'S FEES, AND WAIVER OF RIGHT TO JURY TRIAL.

This Contract shall be construed pursuant to the laws of Florida and may not be construed more strictly against one party than against the other. In the event of any legal proceedings arising from or related to this Contract: (1) venue for any state or federal legal proceedings shall be in Alachua County Florida; (2) each Party shall bear its own attorneys' fees except to the extent that CONTRACTOR agrees to indemnify GRU as described below in Section 4.0 Supplemental Conditions, including any appeals; and (3) for civil proceedings, the Parties hereby waive the right to jury trial.

8.0 SOVEREIGN IMMUNITY.

Nothing in this Contract shall be interpreted as a waiver of GRU's sovereign immunity as granted pursuant to *Section 768.28 Florida Statutes.*

9.0 SEVERABILITY.

If any provision of this Contract is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and provisions shall not be affected; and the rights and obligations of the Parties shall be construed and enforced as if this Contract did not contain the particular provision held to be invalid.

10.0 ASSIGNMENT.

GRU or CONTRACTOR shall not assign, in whole or in part, any right or obligation pursuant to this Contract, without the prior written consent of the other Party.

11.0 AUDIT OF RECORDS.

CONTRACTOR shall maintain records sufficient to document completion of the scope of services pursuant to this contract. At all reasonable times, these records shall be made available to review, inspect, copy and audit by persons duly authorized by GRU. These records shall be kept for a minimum of three (3) years after termination of this Contract. Records that relate to any litigation, appeals or settlement of claim arising pursuant to the performance of this Contract shall be made available until a final disposition has been made of such litigation, appeal, or claim.

12.0 NONEXCLUSIVE REMEDIES.

Except as expressly set forth in this Contract, the exercise by either Party of any of its remedies under this Contract shall be without prejudice to its other remedies under this Contract or otherwise.

13.0 ADVERTISING.

CONTRACTOR shall not publicly disseminate any information concerning the Contract without prior written approval from GRU, including but not limited to, mentioning the Contract in a press release or other promotional material, identifying GRU or the City as a reference, or otherwise linking CONTRACTOR's name and either a description of the Contract or the name of the City or GRU in any material published, either in print or electronically, to any entity that is not a party to Contract, except potential or actual authorized distributors, dealers, resellers, or service representative.

14.0 MODIFICATION OF TERMS.

This Contract constitutes the entire agreement between the Parties. No oral agreements or representations shall be valid or binding upon GRU or CONTRACTOR. No alteration or modification of this Contract, including substitution of product, shall be valid or binding unless authorized by GRU. CONTRACTOR may not unilaterally modify the terms of this Contract by affixing additional terms to product upon delivery (e.g., attachment or inclusion of standard preprinted forms, product literature, "shrink wrap" terms accompanying or affixed to a product, whether written or electronic) or by incorporating such terms onto CONTRACTOR's order or fiscal forms or any other documents forwarded by CONTRACTOR for payment. An acceptance of product or processing of documentation on forms furnished by CONTRACTOR for approval or payment shall not constitute acceptance of the proposed modification to terms and conditions.

15.0 WAIVER.

Any delay or failure by GRU to exercise or enforce any of its rights pursuant to this Contract shall not constitute or be deemed a waiver of GRU's right thereafter to enforce those rights, nor will any single or partial exercise of any such right preclude any other or further exercise thereof or the exercise of any other right.

16.0 DISCLOSURE AND CONFIDENTIALITY.

16.1 "Confidential Information" includes, to the extent such information is defined pursuant to Sections 119.07 and 812.081, *Florida Statutes*, as trade secrets, confidential, or otherwise exempt from the Florida Public Records Law. "Confidential Information" that is marked as "confidential" upon receipt, may include, but not limited to, certain information about GRU's operations, specifications, formulas, codes, software, hardware, intellectual properties, and other confidential and proprietary information belonging to GRU, Work Product (as defined below) or technical documentation, prepared, developed, or obtained by GRU, CONTRACTOR, or any of GRU's or CONTRACTOR's agents, representatives, or employees.

16.2 "Work Product" may include creative work which may lead to programs, intellectual properties, computer software, computer programs, codes, text, hypertext, designs, and/or any other work products associated with or arising directly out of the performance of the Work.

17.0 PUBLIC RECORDS.

If Contractor is either a "contractor" as defined in Section 119.0701(1)(a), Florida Statutes, or an "agency" as defined in Section 119.011(2), Florida Statutes, Contractor shall:

17.1 Keep and maintain public records, as defined in Section 119.011(12) of the Florida Statutes, required by GRU to perform the service.

17.2 Upon request from GRU's custodian of public records, provide the public agency with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law.

17.3 Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to GRU.

17.4 Upon completion of the contract, transfer, at no cost, to GRU all public records in possession of the contractor or keep and maintain public records required by GRU to perform the service. If the contractor

transfers all public records to GRU upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to GRU, upon request from GRU's custodian of public records, in a format that is compatible with the information technology systems of GRU.

17.5 IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, AS TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE GRU CUSTODIAN OF PUBLIC RECORDS AT (352) 393-1240, PURCHASING@GRU.COM, OR 301 SE 4TH AVENUE, GAINESVILLE FL 32601.

18.0 SALES TAX.

Respondent's pricing shall include applicable taxes on items purchased or manufactured by Respondent for the project. GRU is exempt from Florida sales taxes for certain purchases. A "Consumer's Certificate of Exemption" is available at www.gru.com .

[Remainder of page intentionally left blank]

ATTACHMENT 2
SUPPLEMENTAL CONDITIONS

These Supplemental Conditions amend or supplement the Solicitation/Contract as indicated below. All provisions which are not so amended or supplemented remain in full force and effect, except that the Technical Specifications, if any, shall govern if any conflict arises between such sections and these Special Conditions.

1.0 CONDUCT OF THE WORK.

CONTRACTOR shall be considered an independent CONTRACTOR and as such shall not be entitled to any right or benefit to which GRU employees are or may be entitled to by reason of employment. Except as specifically noted in this Contract, CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences, and procedures utilized by CONTRACTOR in the performance of this Contract. CONTRACTOR will assign only competent and skilled workers to perform the Work. All of CONTRACTOR's personnel or subcontractors engaged in any of the Work performed pursuant to this Contract are under CONTRACTOR 's sole direction, supervision and control at all times and in all places. CONTRACTOR 's employees must be as clean and in good appearance as the job conditions permit, conducting themselves in an industrious and professional manner. CONTRACTOR and its employees cannot represent, act, or be deemed to be an agent or employee of GRU.

2.0 CONTRACTOR RESPONSIBILITIES.

2.1 Performance.
CONTRACTOR shall perform all Work promptly and diligently in a good, proper and workmanlike manner in accordance with the Specifications. In performing the Work, CONTRACTOR has the freedom to perform Work in the manner which is most beneficial to the project provided that it is within the limits of these Specifications.

2.2 Project Related Requirements.
CONTRACTOR is responsible for providing and paying expenses for all labor, tools, equipment, and materials. All project related requirements must be of high quality, in good working condition, and conducive for the particular task. Adequate first aid supplies must be provided by CONTRACTOR and accessible to employees. These may include, but are not limited to, sanitation facilities, potable water, and office trailers.

3.0 COOPERATION/COORDINATION.

3.1 Access to Work Site.
GRU and its authorized representatives are permitted free access to the work site, and reasonable opportunity for the inspection of all Work and materials.

3.2 Work by GRU.
GRU reserves the right to perform activities in the area where the Work is being performed by CONTRACTOR.

3.3 Work by Other CONTRACTOR s.
GRU reserves the right to permit other CONTRACTOR s to perform work within the same work area. CONTRACTOR shall not damage, endanger, compromise or destroy any part of the site, including by way of example and not limitation, work being performed by others on the site.

3.4 Coordination.
CONTRACTOR shall, in the course of providing the Work, cooperate and communicate with GRU and all other persons or entities as required for satisfactory completion. CONTRACTOR will afford GRU and other CONTRACTOR s' reasonable opportunity for the introduction and storage of their equipment and materials and the execution of their Work concurrently and coordinating its Work in the best interest of GRU.

4.0 INDEMNIFICATION.

4.1 CONTRACTOR shall be fully liable for the actions of its agents, employees, partners, or subcontractors and fully indemnifies, defends, and holds harmless the City of Gainesville, GRU, its elected officials, its officers, agents, and employees, from any such suits, actions, damages, and/or costs of every name and description, including attorneys' fees, arising from or relating to personal injury and damage to real or personal tangible property alleged to be caused in whole or in part by CONTRACTOR, its agents, employees, partners, or subcontractors.

4.2 Further, CONTRACTOR shall fully indemnify, defend, and hold harmless the City of Gainesville and/or GRU from any suits, actions, damages, and costs of every name and description, including attorneys' fees, arising from or relating to violation or infringement of a trademark, copyright, patent, trade secret or intellectual property right, provided, however, that the foregoing obligation will not apply to GRU's misuse or modification or CONTRACTOR's products or GRU's operation or use of CONTRACTOR's products in a manner not contemplated by the Contract or the purchase order. If any product is the subject of an infringement suit or in CONTRACTOR's opinion is likely to become the subject of such a suit, CONTRACTOR may at its sole expense procure for GRU the right to continue using the product or to modify it to become non-infringing. If CONTRACTOR is not reasonably able to modify or otherwise secure GRU the right to continue using the product, CONTRACTOR shall remove the product and refund GRU the amounts paid in excess of a reasonable rental for past use. GRU shall not be liable for any royalties if applicable.

4.3 CONTRACTOR's obligations under the preceding two paragraphs with respect to any legal action are contingent upon GRU giving CONTRACTOR (1) written notice of any action or threatened action, (2) defending the action at CONTRACTOR's sole expense. CONTRACTOR shall not be liable for any costs or expenses incurred or made by GRU in any legal action without CONTRACTOR's prior written consent, which will not be unreasonably withheld.

4.4 The provisions of this section shall survive the termination or expiration of this Contract.

5.0 DAMAGE TO WORK.

Until final acceptance of the Work by GRU, Work will be under the charge and care of CONTRACTOR who must take every necessary precaution against damage to the Work by the elements or from any other cause whatsoever. CONTRACTOR will rebuild, repair, restore, or make good at their expense, damages to any portion of the Work before its completion and acceptance. Failure to do so will be at CONTRACTOR's own risk. CONTRACTOR is not relieved of a requirement of the specifications on the plea of error.

6.0 DISPUTES.

If a dispute arises out of or relates to this Agreement, or the breach thereof, and if the dispute cannot be settled through negotiation, either party may, by giving written notice, refer the dispute to a meeting of appropriate higher management, to be held within 20 business days after giving of notice. If the dispute is not resolved within 30 business days after giving notice, or such later date as may be mutually agreed, the Parties will submit the dispute to a mediator.The Parties shall mutually agree to the mediator and the costs of the mediator will be born equally by both parties.The venue for mediation and any subsequent litigation shall be in Alachua County, Florida.

7.0 DELAY.

Notwithstanding the completion schedule, GRU has the right to delay performance for up to three (3) consecutive months as necessary or desirable and such delay will not be deemed a breach of Contract, but the performance schedule will be extended for a period equivalent to the time lost by reason of GRU's delay. Such extension of time will be CONTRACTOR 's sole and exclusive remedy for such delay.

If the project is stopped or delayed for more than three (3) consecutive months and GRU or CONTRACTOR elects to terminate the Contract because of such delay, or if such stoppage or delay is due to actions taken by GRU within its control, then CONTRACTOR's sole and exclusive remedy under the Contract will be

reimbursement for costs reasonably expended in preparation for or in performance of the Contract. None of the aforementioned costs will be interpreted to include home office overhead expenses or other expenses not directly attributable to performance of the Contact. CONTRACTOR is not entitled to make any other claim, whether in breach of Contract or in tort for damages resulting in such delay.

8.0 DEFAULT.

If CONTRACTOR should be adjudged as bankrupt, or make a general assignment for the benefit of its creditor(s), or if a receiver should be appointed for CONTRACTOR, or if there is persistent or repeated refusal or failure to supply sufficient properly skilled workforce or proper materials, or if CONTRACTOR should refuse or fail to make payment to persons supplying labor or materials for the Work pursuant to this Contract, or persistently disregards instructions of GRU, or fails to observe or perform or is guilty of a substantial violation of any provision of the Contract documents, then GRU, after serving at least ten (10) calendar days prior written notice to CONTRACTOR of its intent to terminate and such default should continue un-remedied for a period of ten (10) calendar days, may terminate the Contract without prejudice to any other rights or remedies and take possession of the Work; and GRU may take possession of and utilize in completing the Work such materials, appliances, equipment as may be on the site of the Work and necessary therefore. CONTRACTOR will be liable to GRU for any damages resulting from such default.

9.0 TERMINATION.

9.1 Termination for Convenience.

GRU may, by providing thirty (30) calendar days written notice to CONTRACTOR, terminate this Contract, or any part thereof, for any or no reason, for GRU's convenience and without cause. After the termination date, CONTRACTOR shall stop all Work and cause its suppliers and/or subcontractors to stop all Work in connection with this Contract. If GRU terminates for convenience, GRU shall pay CONTRACTOR for goods and services accepted as of the date of termination, and for CONTRACTOR's actual and reasonable, out of pocket costs incurred directly as a result of such termination. GRU is not responsible for Work performed after the effective termination date of this contract.

9.2 Termination for Cause (Cancellation).

GRU may terminate this Contract for cause if CONTRACTOR materially breaches this Contract by:

(a) refusing, failing or being unable to properly manage or perform;
(b) refusing, failing or being unable to perform the Work pursuant to this Contract with sufficient numbers of workers, properly skilled workers, proper materials to maintain applicable schedules;
(c) refusing, failing or being unable to make prompt payment to subcontractors or suppliers;
(d) disregarding laws, ordinances, rules, regulations or orders of any public authority or quasi-public authority having jurisdiction over the Project;
(e) refusing, failing or being unable to substantially perform pursuant to the terms of this Contract as determined by GRU, or as otherwise defined elsewhere herein; and/or
(f) refusing, failing or being unable to substantially perform in accordance with the terms of any other agreement between GRU and CONTRACTOR.

9.3 Funding out Clause.
If funds for this Contract are no longer available, GRU reserves the right to terminate this Contract without cause by providing CONTRACTOR with thirty (30) calendar day's written notice to CONTRACTOR.

10.0 FORCE MAJEURE.

No Party to this Contract shall be liable for any default or delay in the performance of its obligations under this Contract due to an act of God or other event to the extent that: (a) the non-performing Party is without fault in causing such default or delay; and (b) such default or delay could not have been prevented by reasonable precautions. Such causes include, but are not limited to: acts of civil or military authority (including but not limited to courts of administrative agencies); acts of God; war; terrorist attacks; riot; insurrection; inability of

GRU to secure approval; validation or sale of bonds; inability of GRU or Supplier to obtain any required permits, licenses or zoning; blockades; embargoes; sabotage; epidemics; fires; hurricanes, tornados, floods; or strikes.

In the event of any delay resulting from such causes, the time for performance of each of the Parties hereunder (including the payment of invoices if such event actually prevents payment) shall be extended for a period of time reasonably necessary to overcome the effect of such delay. Any negotiated delivery dates established during or after a Force Majeure event will always be discussed and negotiated if additional delays are expected.

In the event of any delay or nonperformance resulting from such cause, the Party affected will promptly notify the other Party in writing of the nature, cause, date of commencement, and the anticipated impact of such delay or nonperformance. Such written notice, including change orders, will indicate the extent, if any, to which is anticipated that any delivery or completion date will be affected.

11.0 LIMITATION OF GRU'S LIABILITY.

To the fullest extent permitted by law, GRU shall not be liable to CONTRACTOR for any incidental, consequential, punitive, exemplary or indirect damages, lost profits, revenue or other business interruption damages, including but not limited to, loss of use of equipment or facility.

12.0 AUTHORIZED REPRESENTATIVES.

The Purchasing Representative for this Contract is Ms. Jessie C. Moseley. Questions regarding this Solicitation and the administration of the resulting Contract shall be directed to Ms. Moseley at (352) 393-1252 or via email at MoseleyJC@GRU.com.

13.0 WORK HOURS.

GRU normal business hours are Monday through Friday 8:00 AM to 5:00 PM. CONTRACTOR may perform the Work outside business hours only with prior approval from the Authorized Representative or designee.

14.0 PERFORMANCE TIME.

CONTRACTOR shall complete the Work no later than the date set forth in the Contract. CONTRACTOR further understands and agrees that time is of the essence. If CONTRACTOR fails to complete the Work on or before the date established for Final Completion, then CONTRACTOR will be solely responsible for liquidated damages or other costs as set forth in the Solicitation or Contract.

15.0 LIQUIDATED DAMAGES.

Liquidated damages shall not be assessed.

16.0 COMPLETION OF WORK.

16.1 Substantial Completion: The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms "substantially complete" and "substantially completed" as applied to all or part of the Work refer to Substantial Completion thereof.

16.2 Final Completion: The date that the Owner receives and agrees with written notice from the Contractor stating that the Work has been completed and is ready for final payment.

17.0 DELIVERY.

All materials and equipment shall be delivered F.O.B. Destination, freight included.

18.0 JOB SITE.

The Work shall be performed at Deerhaven, Kelly Plant, South Energy Center (SEC), and Deerhaven Renewables.

19.0 BONDS.

Bonds are not required for this Solicitation.

20.0 INSURANCE.

CONTRACTOR shall meet the minimum insurance requirements at all times as required by law and GRU. CONTRACTOR shall notify GRU of any changes in coverage within seven (7) business days of knowledge of such change taking effect. Failure to maintain minimum coverage may result in breach of Contract. CONTRACTOR shall procure and maintain insurance with coverage amounts as required. CONTRACTOR must furnish GRU a certificate of insurance in a form acceptable to GRU for the insurance required with endorsement naming GRU as additional insured.

21.0 MINIMUM INSURANCE AMOUNTS REQUIRED.

Insurance is required in the amounts set forth below:

Commercial General Liability	$1,000,000 combined single limit for bodily injury and property damage
Automobile Liability	$1,000,000 combined single limit for bodily injury and property damage
Worker's Compensation:	
(a) State	Statutory
(b) Applicable Federal	Statutory
(c) Employer's Liability	$500,000 per Accident $500,000 Disease, Policy Limit $500,000 Disease, Each Employee
Excess Liability	$1,000,000

22.0 WARRANTY/GUARANTEE.

22.1 CONTRACTOR warrants and guarantees to GRU that all materials will be new unless otherwise specified and that all Work will be of a quality free from defects and in accordance with the Specifications. CONTRACTOR agrees to remedy promptly, and without cost to GRU, any defective materials or workmanship which appear within the stated warranty period. No provision contained in the Specifications shall be interpreted to limit CONTRACTOR's liability for defects.

22.2 No provision contained in the Specifications shall be interpreted to limit the terms and conditions of the manufacturer's warranty and CONTRACTOR will secure parts, materials and equipment to be installed with manufacturer's full warranty as to parts and service wherever possible. CONTRACTOR must indicate if any warranty is being provided by either CONTRACTOR or a manufacturer and if any such warranty is being provided, such warranty will be stated. When the manufacturer warrants the equipment or materials being supplied, CONTRACTOR must provide such warranty to GRU or must state as a Clarification and Exception the reason CONTRACTOR is not able to provide such warranty.

22.3 All labor shall be warranted for a minimum of one (1) year. For materials, the Manufacturer's warranty applies.

23.0 SAFETY AND SECURITY.

Each location has unique safety and security procedures and guidelines that must be followed. Acceptance of a project or work assignment in a particular location will be an acceptance of the safety and security requirements for that location. GRU will provide the safety and security requirements along with the scope of work requested.

23.1 Confinement to Work Area/Parking.
CONTRACTOR's employees shall stay in the designated work area to the maximum extent possible and shall not traverse other areas of GRU's site except for travel to and from sanitary facilities or designated parking areas. CONTRACTOR and its employees shall park personal vehicles and equipment in areas designated by GRU.

23.2 Sanitation.
If sanitary facilities are available near the work site, CONTRACTOR may request GRU's permission to use such facilities by its employees, obtaining written permission from GRU prior to the use of such facilities. Unless such permission has been obtained, CONTRACTOR is responsible for the cost, provision and maintenance of sanitary facilities for persons employed by CONTRACTOR. If responsible for providing sanitary facilities, CONTRACTOR is also responsible for all labor and supplies necessary to maintain such facilities and must comply with the State Board of Health requirements. Upon completion of the Work, facilities must be removed from the site.

24.0 LIVING WAGE ORDINANCE.

The Living Wage Ordinance as amended does not apply to this Solicitation. The ordinance can be found at www.cityofgainesville.org. The Living Wage Decision Tree is attached.

25.0 WARRANTY OF TITLE.

CONTRACTOR warrants that it holds and shall transfer unencumbered title of the property to GRU and further warrants that it has the right and authority to transfer the title to the property.

26.0 ORDER OF PRECEDENCE.

In the event that there is any conflict between the terms and conditions, the order of precedence shall be as follows:

a. Any modification to this Contract
b. Contract
c. GRU Technical Specifications
e. GRU Supplemental Conditions
f. GRU General Conditions
g. GRU Instructions
h. CONTRACTOR Response

ATTACHMENT 3
TECHNICAL SPECIFICATIONS / STATEMENT OF WORK

1.0 SCOPE OF PROJECT

Convert all existing Deerhaven, Deerhaven Renewables, Kelly Plant, and SEC logs into an electronic format. Capture data and text for shift notes and turnover and to maintain a daily log.

1.1 Log sheets for each plant; these are data points and will be submitted to the PI Historian. (Logs are based on individual plant requirements, approximately 85 logs are maintained between the 4 sites)(Data from the log sheets typically is from pressure gauges, temperature gauges, revenue meters and quantities based on inventories.)(Most of our current logs are in an Excel format)

1.2 Log Books – These log books are text based and the text data will need to be saved on the server. **Text or shift notes and log books will be archived on the electronic log server.**

1.3 Shift notes – These are the logs kept by each shift for activities that occurred during the shift, this will be primarily test data, but will also have digital data points. The data would need to be segregated and sent to the appropriate data storage site.

1.4 Reports – Ability to generate reports, incident, safety, equipment inspection, etc.

1.5 Shift turnover summary – Pull data from the Shift Notes, Reports, LOTO software, InforEAM/SAP, PI Historian, and/or other software used to store data. (LOTO Software – Nisoft, Taglink, TK Pro)

2.0 DELIVERABLES

2.1 System and training

2.2 Must be able to work off-line.

2.3 Must be able to interface with OSIsoft PI Historian, upon completing round, manual submit data. **(OPC, ModBus TCP, more solutions if needed.)**

2.4 Must work on Windows based mobile devices.

2.5 Must be configurable by GRU to meet changing demands. Must be able to change, add, or delete forms. Must be able to change layout to match rounds and plant layout for ease of use. (Do not want to send all changes to vendor).

2.6 Must be able to have a required reading and sign-off with a timestamp of when the required reading was read.

2.7 Allow manual timestamp for certain documents, set by the administrator.

2.8 Preference to system that can interface with InforEAM/SAP to automatically generate a list of work orders written and completed on the shift turnover log.

2.9 Preference to system that can interface with NiSoft Eclipse, TK Pro, and Taglink to generate a list of permits issued and cleared on the shift turnover log.

2.10 Daily rounds must be able to trigger notes based on readings outside of normal. These notes should automatically generate on the shift turnover log. Alarming and advanced analytics – Shift notes must capture notes written during rounds.

2.11 All alarms should change font to red. (Range for reading will be on log and should alarm when outside of these parameters)

2.12 Safe work practices – trigger at the beginning of the activity.

2.13 Homepage and Dashboard

2.14 User permission for access and edit

2.15 Document management

2.16 Trending, reporting and searching

2.17 Automatically create a new log, once the old log has been completed.

2.18 Work with the Active Directory to allow login, individual roles must be configurable inside the software.

2.19 Service Records and Daily Reporting
2.20 Automatically save data periodically on the device when working off line to prevent loss of data.
2.21 Must be able to generate a report based on the last time the user logged in, configured to ensure on pertinent data is displayed.
2.22 Must run on an Enterprise Sequel Server, all plants will use the same server.
2.23 Track Key Performance Indicators (KPIs).

3.0 MAINTENANCE MANUAL

Create user manuals for the different user groups. The manuals shall be in an electronic format. User groups consist of infrastructure, application management, and business users. Integrators shall provide accurate, exhaustive, complete and clear instructions and list the Contact Information with the names of relevant people to contact if necessary. **A sample template used to create user manuals, as well as sample manuals for infrastructure and application management, must be submitted in an electronic format with the bid.**

The main components that should be completely and correctly described are the following:

3.1 Pre-Requisites

In this section is a list of install prerequisites required before the migration can begin. Prerequisites are of the order of

i. Software Components used by the application (e.g. Database, Application Software ...)
ii. Configuration Files
iii. System Requirements (Software and/or Hardware)
iv. Etc.

3.2 Installation Procedure

This section must be as clear and explicit as possible. List all the steps in chronological order for which the installer must follow to complete the task. Also include common issues that may arise.

Additionally, clearly indicate the actor/role who has to perform the tasks: group tasks for one group of people as much as possible (i.e. database team, systems team, etc.).

Distinction must be made for the following groups: this implies that these operations should be grouped as much as possible so the installation takes place in a linear process to avoid wasting time when the installation process has to jump between different groups of people.

3.3 Post-installation

The installation instructions should contain a check list that details

i. the list of all files modified during the installation
ii. the location of the configuration files; a list of useful parameters; if necessary, global configuration files will be used in order to avoid multiple definitions of the same parameters/variables
iii. the list of periodic jobs to schedule
iv. a procedure to check the correct installation/working of the application: basic checks to be performed by the person in charge of the installation should allow to check if the application is behaving correctly without requiring a full functional validation.

3.4 Technical Tests

Adequate testing is required prior to migrating into the production environment. The testing script will test the data integrity.

Contractors should include in the delivery a separate folder with all the necessary test files, tools, scripts, etc. and a complete well-formed test plan procedure that can be handled by the test team.

The test plan should be linked to the delivery package it belongs to, describe the purpose of the tests, and should mention in an unambiguous way the correct environment prerequisites and information, the location of the data source needed as input (if any), the actions to perform and the expected results, the output files location (if any).

Some tests might need to be performed before delivery install: mention of this particular situation should be included in the test plan in order to inform the people concerned.

4.0 SPECIAL PROVISIONS

4.1 Must work on GRU supplied **Windows Based Tablet ONLY**
4.2 **Cannot use iPad devices**

5.0 SPECIAL GRU RESPONSIBILITIES

5.1 Provide SQL Server
5.2 Provide Windows Based Tablets
5.3 Provide rounds format
5.4 PI Data Tags
5.5 Provide forms format

osisoft compatible protocols

AAI OPTICHROM 2100 GLC (VAX)
AAI OPTICHROM 2100 GLC (AXP)
AAI OPTICHROM Advanced GLC (VAX)
AAI OPTICHROM Advanced GLC (AXP)
ABB 800 xA
ABB AC410 (ABB Advant Controller 410)
ABB AC450 (ABB Advant Controller 450)
ABB AC800 Controllers
ABB Advant Enterprise Historian Select Package ASEA Masterpiece
ABB Advant via Masterbus 300
ABB Bat 300 (VAX)
ABB BECOS
ABB Digimatic
ABB Digimatic Freelance 2000
ABB DPU-2000R
ABB GCOM
ABB gimsplus (NTI)
ABB IMS Advant (NTI)
ABB IMS Advant - HPUX for IMS ver. 1.1 (HPUX)
ABB IMS Advant Interface - HPUX for IMS ver. 1.2, 1.3, 2.0 (HPUX)
ABB IMS Advant PDL (NTI)
ABB IMS Advant PDL (HPUX 10.2 plus) (HPUX)
ABB IMS Advant PDL (HPUX 9.x) (HPUX)
ABB IMS/AEH Advant Station 500
ABB Infi90
ABB Infi90 SemAPI - AXP
ABB Infi90 SemAPI - NTI
ABB Infi90 SemAPI - VAX
ABB Inform IT
ABB IXS (Accuray 1180's and 1190's)
ABB Master
ABB Master Production Data Log
ABB Masterbus 300

ABB Masterpiece 200
ABB Masterpiece 280/1
ABB Materpiece via Masterbus 300
ABB Mod 3 (VAX)
ABB Mod 3 (AXP)
ABB Mod 30 (VAX)
ABB MOD 300
ABB Mod 300 (pre ver. 8) (VAX)
ABB Mod 300 (supports Ver. 8 and above) (VAX)
ABB Mod 300 (supports Ver. 8 and above) (AXP)

ABB MOD 300 v.14.4 or greater with ABB OPC server

ABB Nexus
ABB Operate IT
ABB PA System
ABB PCAP DCS (VAX)
ABB PCAP DCS (AXP)
ABB PCD 2000
ABB Procontrol P for PBS (NTI)
ABB Procontrol P via CPS (VAX)
ABB Procontrol P via CPS (AXP)
ABB Procontrol Via Primos (VAX)
ABB SCD 2000
ABB Symphony Harmony
ABB System 6
ABB Taylor POL (VAX)
ABB Taylor POL (AXP)
ABB TPU-2000 Transformer Protection Unit
ABB Ulma 2000 Void Detector (NTI)
ABB Ulma 2000 Void Detector (VAX)
ABB Ulma 2000 Void Detector (AXP)
ABB Ulma 3D Dual Beam (NTI)
ABB Ulma 3D Dual Beam (VAX)
ABB Ulma 3D Dual Beam (AXP)
ABB Ulma 3D Single Beam (NTI)
ABB Ulma 3D Single Beam (VAX)
ABB Ulma 3D Single Beam (AXP)

ABB Ulma CNI (NTI)
ABB WIS CNI (NTI)
ABB XA800
ABB/ Accuray 1180 Microlink (VAX)
ABB/Accuray 1180 DIU (NTI)
ABB/Accuray 1180 Microlink (AXP)
ABB/Accuray 1180 Quakerlink (NTI)
ABB/Accuray 1190 DIU (NTI)
ABB/Accuray 1190 Microlink (VAX)
ABB/Accuray 1190 Microlink (AXP)
ACS Generic DNP 3.0
ACS Generic L and N 2020
ACS Generic with DDModbus License
ACS NTU-7510
ACS NTU-7530
ACS NTU-7550
ACS NTU-7560
ACS NTU-7575
ACS Prism (HPUX)
ACS Taiwan 2-way 11kV
ACS Taiwan 4-way
ACS Taiwan ATS 22kV
ADACS SCADA (VAX)
ADACS SCADA (AXP)
AdvaInform Batch300
AdvaInform UserAP
AECL ACCIS Plant Display System (NTI)
AIM Albatross
AIM Historian
Alerton Technologies Inc. BACtalk
Alfa Laval Automation SattLine via OLE Gateway (NTI)
Allen Bradley IOLinx (NTI)
Allen Bradley PLC 2, 3, 5 (VAX)
Allen Bradley PLC 2, 3, 5 (AXP)
Allen Bradley PLC2
Allen Bradley PLC3

Allen Bradley PLC5
Allen Bradley Pyramid Integrator/Inter (VAX)
Allen Bradley Pyramid Integrator/Inter (AXP)
Allen Bradley RSLinx
Allen Bradley RSLinx HPUX (HPUX)
Allen Bradley RSLinx NTA (NTA)
Allen Bradley RSLinx NTI (NTI)
Allen Bradley SLC505
Alstom e-terracontrol Communications Gateway
Alstom KITZ202/142
Alstom KITZ202/160
Alstom KITZ202/KCEG130
Amersham Unicorn
Ametek Jemstar Digital Multi-function Electric Meter
Andover Controls Continuum
AnnotationArray OPC Plugin (NTI)
Aprol SCADA (InStem)
APT Power Technology L-Pro 2100 Line Protection
Arbiter Systems 1133A (NTI)
Areva e-terrahabitat
ARGA Control Power Meter
ARL XRF (WinXRF) (NTI)
ArrayData OPC Plugin (NTI)
AspenTech Advisor to PI (NTI)
AspenTech CIM/21
AspenTech CIM-IO Client (NTI)
AspenTech InfoPlus
AspenTech InfoPlus X
AspenTech IP21
AspenTech IP21 COM Connector (NTI)
AspenTech PI To Advisor (NTI)
Automated Logic Controls WebCtrl
AutoMax
Automess (VAX)
Automess (AXP)
B Braun Biotech DCU
BACnet (NTI)

Bailey Network90
Bailey CIU01
Bailey CIU02
Bailey CIU03
Bailey CIU04
Bailey Data Access Server
Bailey DCI Symphony Conductor
Bailey ICI01
Bailey Infi90 (VAX)
Bailey Infi90 (AXP)
Bailey Infi90 (NTI)
Bailey Infi90 (NTA)
Bailey Infi90 (AIX)
Bailey Infi90 SemAPI (VAX)
Bailey Infi90 SemAPI (AXP)
Bailey Infi90 SemAPI (NTI)
Bailey INICI03
Bailey Ranger Interface (ABB)
Bailey System 6 (NTI)
Barber Colman MACO 4000
Basler BE1-851 Overcurrent Relay
Basler BE1-951 Overcurrent Protection Relay
Basler BE1-CDS Current Differential Relay
Basler BE1-DFPR
Basler BE1-GPS Generator Protection Relay
Basler BE1-MMS Multifunction Meter System
Batch Event File Monitor (NTI)
Batch File (AIX)
Batch File (DUX)
Batch File (HPUX)
Batch File (NTA)
Batch File (NTI)
Batch File (SOL2)
Batch File (VAX)
Batch File (AXP)
Baytek International BLIS LIMS
Beckman Lab System (HPUX)

Beckwith M2001A Tapchanger Control
Beckwith M2001B Tapchanger Control
Beckwith M2001C Tapchanger Control
Beckwith M3420 IPS
Bently Nevada 3500
Bently Nevada System One
BitMask OPC Plugin (NTI)
Bitronics AIM 6x6
Bitronics MTWDE1B Power Monitor
Bitronics MTWDE2B
Bitronics MTWDN3B
Bitronics MTWIE1A Power Monitor
Bitronics MTWIE1B Power Monitor
Bitronics MTWIE2B Power Monitor

Bitronics MultiComm RTH 2 with Demand and Harmonics

Bitronics MultiComm RTH 2 with Demand only
Bitronics MultiComm RTH 2, 1/2, or 3 E1 with Demand and Harmonics
Bitronics MultiComm RTH 2, 1/2, or 3 E1 with Demand only
Bliss Lab System (AIX)
Bliss Lab System (HPUX)
Bliss Lab System (NTI)
Bliss Lab System (NTA)
Bliss Lab System (VAX)
Bliss Lab System (AXP)
Bristol Babcock (Open BSI)
Bristol Babcock BSAP Protocol
Bruker X-Ray (NTI)
Campbell Scientific LoggerNet (NTI)
CANbus / CANopen
Carrier Corporation Datalink to VVT Controls
Caterpillar SCM CCM A
Caterpillar SCM CCM B
Chessel PLC
Chessell 5000 Series Controllers

Chicago Dial Indicator (VAX)
Chicago Dial Indicator (AXP)
Chicago Dial Indicator (NTI)
Cincinnati Leak Detector Test System (NTI)
Cisco Phone (NTI)
Cisco PIX Firewall (NTI)
Citect (NTI)
Cognex In-Sight Micro Vision Systems
Cognex Isys (NTI)
Contec Env. Mgmt System (NTI)
ControlLogix 5550 PLC
ControlLogix Gateway
ControlLogix Processor
ControlNet with RSLinx
Controlotron Flow Meter (NTI)
Cooper CL4 Regulator Control (v.2.12)
Cooper CL5 Regulator Control (v.2.12)
Cooper F4C Recloser Control (v.2.12)
Cooper Form 5 Reclosure Control with DB-16
Cooper Form 5 Triple Single Reclosure Control
Cooper Form 6 Reclosure Control with Proview 4.0 and CPS DNP R1.0
Cooper Generic Level 1
Cooper iDP-210 Feeder Protection and Control Relay with Proview 3.2
Cooper Romtec-97169 Protocol Converter (v.2.12)
CSI - ADMET WINCOM (NTI)
Cybectec SMP (NTI)
Data Highway Plus SLC 500
Data Highway Plus SLC 505
Data Sync - VAX (VAX,AXP)
Data Sync--DECRdB Relational Database Interface - VAX (VAX,AXP)
Data Sync--Ingres Relational Database Interface - VAX (VAX,AXP)
Data Sync--Oracle Relational Database Interface - VAX (VAX,AXP)

DaVinci OPC Plugin (NTI)
Davis Vantage Pro / Pro Plus Weather Station (NTI)
Davis Weather Station (NTI)
dBase III
dBase IV
DDE (NTI)
Delta Controls Delta Control System
Delta Controls Intelli-Con (NTI)
Digital Inspections CARE
DLSM Protocol
DMC 4
DMC4 (VAX)
DMC5 (VAX)
DMC5 (AXP)
DNP 3.0 (NTI)
Dukane Ultrasonic Welding System (NTI)
Dynamic Matrix Control Corporation’s (DMCC) Multivariable Control Software (MCS)
Echelon LonWorks
ECHO to PI (NTI)
Electro Industries/Guagetech DMMS 300
Electro Industries/Guagetech Futuraplus Series CPU 1000
Electro Industries/Guagetech Nexus 1250 Power Monitor (v.0190)
Electro Industries/Guagetech Nexus 1250 Power Monitor (v.604)
Electro Industries/Guagetech Nexus 1252 Power Monitor (v.604)
Electro Industries/Guagetech Nexus 1260 Power Monitor (v.604)
Electro Industries/Guagetech Nexus 1260/1270 Power Monitor (v.0190)
Electro Industries/Guagetech Nexus 1262 Power Monitor (v.604)
Electro Industries/Guagetech Nexus 1270 Power Monitor (v.604)

Electro Industries/Guagetech Nexus 1272 Power Monitor (v.604)
Elutions WizCon Systems
Emerson WEStation
Emerson (Westinghouse) Ovation (NTI)
Emerson (Westinghouse) Ovation 1.2 to 1.5 (SOL)
Emerson (Westinghouse) Ovation 1.6 to 1.8 (SOL)
Emerson AMS Suite
Emerson DeltaV (inputs and outputs)
Emerson DeltaV (inputs to PI only)
Emerson DeltaV Asset Connector (NTI)
Emerson DeltaV Batch (NTI)
Emerson DeltaV Compliance Suite Batch (NTI)
Emerson DeltaV Smart Connector (NTI)
Emerson Provox Operator Console
EnergyLine Systems 5801 Switch Controller
Enraf Entis
Enraf ENTISPlus Tank Gauge (NTI)
Enraf Microlect Tank Gauging System (VAX)
Enraf Microlect Tank Gauging System (NTI)
Enraf Microlect Tank Gauging System (NTA)
Enraf Microlect Tank Gauging System (AXP)
Enron VISUPRO
Environmental Systems E-DAS Interface - READ ONLY (NTI)
Environmental Systems E-DAS Interface - READ/WRITE (NTI)
EPIC Interface (Entergy JAF-specific) (VAX)
ERFDADS (NTI)
ESC8816 Environmental Monitor
ESCA HABConnect (NTI)
ESCA HABConnect Alarms and Events (NTI)
ESCA HABITAT-SCADA (VAX)
ESCA HABITAT-SCADA (AXP)
ESCA SCAPI (NTI)
Eurotherm 2000 Series Controllers
Eurotherm 3000 Series Controllers

Eurotherm T3500
Eurotherm T921
Eurotherm800 (NTI)
Event File Maintenance (NTI)
Event Logger (NTI)
Event Logger (NTA)
Event Logger (AXP)
Event Logger (VAX)
Field Electronic Ltd. PLC 2000
Fischer-Porter SMC (VAX)
Fischer-Porter SMC (AXP)
Fisher Controls Fisher ROC
Fisher Recipe Manager

Fisher Remote Operational Controller (ROC) Emulation

Fisher-Rosemount CHIP (VAX)
Fisher-Rosemount CHIP (AXP)
Fisher-Rosemount CHIP (NTI)
Fisher-Rosemount CHIP (HPUX)
Fisher-Rosemount RMTHOST (VAX)
Fisher-Rosemount RMTHOST (AXP)
Fisher-Rosemount RNI (VAX)
Fisher-Rosemount RNI (AXP)
Fisher-Rosemount RNI (NTI)
Fisher-Rosemount RNI Events (NTI)
Fisher-Rosemount SCI (NTI)
Fisher-Rosemount ValveLink VL2030
FLS ESC (NTI)
FLS Shell Scanner (NTI)
Fluke 268XA device
Fluke NetDAQ
Forney
Forry Electrostatic Precipitator (VAX)
Forry Electrostatic Precipitator (AXP)
Forte Series 8790 (NTI)
Foxboro AIM* AT OPC Server (DA and HDA version Required)

Foxboro AP50 (Sol1)
Foxboro AP50 API DECNET (Sol1)
Foxboro AP50 API TCPIP (Sol1)
Foxboro AP51 Interface (DECNet) - Solaris 2.x (Sol2_decnet)
Foxboro AP51 Interface (TCP/IP) - Solaris 2.x (Sol2.x_tcpip)
Foxboro AW70 Series (NTI)
Foxboro C50
Foxboro FCG Microspec (FOXNET) (VAX)
Foxboro Fox SCADA (SOL)
Foxboro Fox SCADA ODBC (NTI)
Foxboro FoxBatch (NTI)
Foxboro IA (AIS) (VAX)
Foxboro IA (AIS) (AXP)
Freelance 2000
Fuji Electric GW Interface (NTI)
GE 90-30/70 Interface (NTI)
GE 9070 PLCs
GE Cimplicity (NTI)
GE Energy Management Systems, Inc.
GE Energy XA/21 EMS/SCADA System
GE ENMAC (AIX)
GE ENMAC (DUX)
GE ENMAC (NTI)
GE EPIC (NTI)
GE Exciter EX2100
GE Fanuc Proficy
GE Habitat (VAX)
GE Mark IV (GE Industrial Systems)
GE NetDAHS Data Acquisiton and Handling System
GE PAC 4020/4010 (NTI)
GE Power Systems VISUPRO
GE Series 6
GE SM3 Step Voltage Regulator
GE Speedtronic Mark V control system
GE Speedtronic Mark VI control system

GE XA/21 APS Connector (NTI)
GE/Harris D20 RTU
GE/Harris D-20ME Processor Module (v.920)
GE/Harris Dart
GE/Multilin PQM
GE/Multilin SR 745
GE/Multilin SR 750/760 (with or without map)
GE/Multilin Universal Relay Family (v.2.80)
GE/Multilin UR Series B30 Bus Differential Relay (v.2.91)
GE/Multilin UR Series L90 Line Differential Relay (v.2.91)
GEM 80 PLC's
Generic CSV APS Connector (NTI)
Generic OPC Plugin (NTI)
Gensym G2
Geomation System 2300, AS400 (requires DB2)
GSE D/3 (VAX)
GSE D/3 (AXP)
GSE D/3 DBA (NTI)
GSE D/3 TrendR - Version 10 (NTI)
Harmony Freelance AP6400
Hartmann and Braun Contronic E-K,
ConDas/ConLink (VAX)
Hartmann and Braun Contronic E-K,
ConDas/ConLink (AXP)
Hartmann and Braun Contronic P, (BtB) (VAX)
Hartmann and Braun Contronic P, (BtB) (AXP)
Hartmann and Braun Contronic P, ConLink V (VAX)
Hartmann and Braun Contronic P, ConLink V (AXP)
Hartmann and Braun Contronic P/E-K, Conlink X (HPUX)
Hartmann and Braun Contronic P/E-K, Conlink X (AXP)
Hartmann and Braun Contronic P/E-K, Conlink X (VAX)

Hartmann and Braun Contronic P/E-K, Conlink X (NTI)

Hartmann and Braun Contronic P/E-K, Conlink X (NTA)

Hartmann and Braun Contronic S
Hathaway RIG
Hathaway RIG (v.2.12B)
Hitachi EX Basic Communication (NTI)
Hitachi EX Series GWU (NTI)
Honeywell 4500/45000 Interface
Honeywell 620 Series PLCs
Honeywell Alcont
Honeywell APP Node
Honeywell CG (NTI)
Honeywell CM50N (VAX)
Honeywell CM50S (TDC3000) (VAX)
Honeywell CM50S (TDC3000) (AXP)
Honeywell Excel 5000
Honeywell Experion PKS
Honeywell MAS-C DECNET (vendor processor)
Honeywell MAS-C TCP/IP (vendor processor)
Honeywell Open DDA-200 (HPUX)
Honeywell PAI Cirrus EIS
Honeywell PCNM (NTI)
Honeywell PHD (NTI)
Honeywell PHD COM Connector (NTI)
Honeywell Phoenix CM50S (VAX)
Honeywell PlantScape
Honeywell POMS
Honeywell Scan3000 (NTI)
Honeywell Scan3000 (VAX)
Honeywell Scan3000 (AXP)
Honeywell TDC 3000
Honeywell TDC2000
Honeywell TotalPlantBatch

Hsiang Cheng 2-Way Feeder Terminal Unit (FTU) (v.2.0)

Hsiang Cheng 4-Way Feeder Terminal Unit (FTU) (v.2.0)

Hsiang Cheng R2plus Remote Terminal Unit (PRTU) (v.RC-414A)
HTML (NTI)
Hunter Lab Universal (Colorimeter) (NTI)
Husky Injection Molding Machine (NTI)
Hyrpotech HYSYS
IBM SNA LU62 (VAX)
ICCP (NTI)
IEC 61850
IEC 62056-21
IFS (ERP System)
Impact Scanner (NTI)
Inductive Components Manufacturing UVR-1 Voltage Regulator (v.231.00)
InStep eDNA

Intellution FIX DMACS (FIX32)/Dynamics (iFIX) (NTI)

Intellution iBatch
Intellution iHistorian
Intellution Visual Batch
Invensys Barber Coleman Network 8000
IP Flow (NTI)
Itron MV-90 xi
Johnson Controls Metasys System
Jova Solutions FermWorks
K Data Highway
Kajaani Paper Lab (NTI)
Kaye Data Logger (NTI)
L and J Tank Gauging (VAX)
L and W Autoline 300 (NTI)
LabVantage
LabWare LIMS
Land Pyrometer (VAX)
Land Pyrometer (AXP)
Landis and Gyr 6800 (VAX)

Landis and Gyr 8500 (VAX)
Landis and Gyr 8500 (AXP)
Landis and Gyr MAXsys2510 (v.016R07)
Leco Analyzer (NTI)
Leeds and Northrup 2068 (NTI)
Leeds and Northrup MAX1000 (Petrobras) (VAX)
Leeds and Northrup MAX1000 (Petrobras) (AXP)
Leeds and Northrup Micro MAX II (VAX)
Leeds and Northrup Micro MAX II (NTI)
MAX Controls MAX 1000 (NTI)
MAX Controls MAX I (VAX)
Maximo
Measurex 2002 (VAX)
Measurex 2002 (AXP)
Measurex DaVinci
Measurex MXO (VAX)
Measurex MXO (AXP)
Measurex MXO (NTI)
Measurex Roibox (NTI)
Message Logger (NTI)
Metso DNA
Metso maxDNA (NTI)
Metso OPC Plugin (NTI)
Micro Motion ELITE Model RFT9739 Transmitter (Mass Flow Meter)
Microsoft Windows Event Log (NTI)
Microtrac Particle Size Analyzer (NTI)
Mitsubishi Diasys Netmation
Mitsubishi Electric MELSEC (NTI)
Modbus Ethernet PLC (NTI)
Modbus/Modbus Plus PLC (VAX)
Modbus/Modbus Plus PLC (AXP)
Modbus/Modbus Plus PLC (NTI)
Modbus/Modbus Plus PLC (NTA)
Modcomp FLIC Interface (AXP)
Modcomp Process computers
Modcomp Req/Ack (VAX)

Modicon 984 Series PLCs
Modicon AS-884A-101
Modicon AS-884A-311
Modicon MM-PMC3-10
Modicon Quantum PLCs
Moore APACS (VAX)
Moore APACS (AXP)
Moore APACS (NTI)
Moore ICI (VAX)
Moore ICI (AXP)
Moore ICI (NTI)
Moore ICI (NTA)
Moore Products Co. RTAP
Moore Products ProcessSuite
Moore Products SuiteLink

Motherwell Control Systems 2800i Servo Tank Gauge

Motherwell Control Systems 3108 Tank Gauging System

Motherwell Control Systems 8900d Radar Tank Gauge

Motherwell Controls Series 5000 Tank Gauging System

Motherwell Controls Series NT5000 Tank Gauging System
Motorola Moscad
National Instruments FieldPoint-1601
National Instruments LabVIEW
NDC Series 8000 TDi ProNet Profile Measurement Systems
NDC Series 9000 TDi ProNet Profile Measurement Systems
Neles Damatic XD
Nexus OPC Plugin (NTI)

Nulec Automatic Circuit Recloser CAPM2 (v.9.xx.bg.bc)

Nulec Automatic Circuit Recloser CAPM4 (v.25)

Nulec Circuit Breaker Controller CAPM4/CAPM5 (v.526-05-00)
Nulec N Series Recl.m CAPM2 (v.9.xx.bg.ba)
OLEDB COM Connector (NTI)
Omni Flow Computers Series 6000
Omron Sysmac C200 HG

OPC (OLE for Process Control) Interface (No SDK) (NTI)

OPC Alarms and Events (NTI)
OPC DA Interface (NTI)
OPC HDA Interface (NTI)
OPC HDA Server COM Connector (NTI)

Open Systems International Monarch SCADA System

Opto22
Opto22 Snap Pac S-series
Oregon Scientific Cable Free Weather Station (NTI)
ORSI Cube (NTI)
OSI ECHO COM Connector (NTI)
OSI PI COM Connector (NTI)
OSI ProcessPoint COM Connector (NTI)

PacketCapture (required for the IP Flow interface) (NTI)

Parr Bomb Calorimeter (NTI)
Perkin Elmer Lab (VAX)
Perkin Elmer Lab (AXP)
Philips XRF (NTI)
PI Batch Generator (PIBaGen) (NTI)
PI Flat File (NTI)
PI Interface Status (NTI)
PI Performance Monitor (NTI)
PI to PI (DECNet) (AXP)
PI to PI (DECNet) (VAX)
PI to PI (TCP/IP) (AIX)
PI to PI (TCP/IP) (NTA)
PI to PI (TCP/IP) (HPUX)
PI to PI (TCP/IP) (DUX)

PI to PI (TCP/IP) (SOL2)
PI Universal File Loader (NTI)
PI-Interface Status (NTA)
PI-Interface Status (AIX)
PI-Interface Status (DUX)
PI-Interface Status (HPUX)
PI-Interface Status (SOL)
Ping (NTI)
PIToPI TCP/IP (NTI)
Power Measurement Ltd. 3300 ACM
Power Measurement Ltd. 3710 ACM 3-Way Mode
Power Measurement Ltd. 3710 ACM 4-Way Mode
Power Measurement Ltd. 3710 ACM Delta Mode
Power Measurement Ltd. 3720 ACM
Power Measurement Ltd. 7330 ION
Power Measurement Ltd. 7350 ION
Power Measurement Ltd. 7500 ION
Power Measurement Ltd. 7600 ION
Power Measurement Ltd. 7700 ION
Power Measurement Ltd. 8300 ION
Power Measurement Ltd. 8400 ION
Power Measurement Ltd. 8500 ION
Power Measurement Ltd. ION
PowerCom Technologies SA-2500 RTU
Profibus DP Protocol
Profibus MPI Protocol
ProtocolConverter-DeltaV (NTI)
PSE RTU Custom for Puget Power and Gas (NTI)
Qualitrol Model 509 Transformer Monitor (v.1.10)
Queue Freedom Bridge - Modcomp/Gould
Quindar SCADA (NTI)
Real Time Executives
Relational Database (RDBMS via ODBC) (NTI)
Relational Database (RDBMS via ODBC) (NTA)
Reliance
Reliance AutoMax IRD Vibration Monitor
Reliatronics RTU-2000 (v.DNP3_20/F2000_14)

Rockwell Automation Micrologix 1200
Rockwell Automation PLC 5000
Rockwell Automation PLC 5500
Rockwell Automation PowerMonitor 1000
Rockwell Automation RSBatch
Rockwell Automation RSView
Rockwell Automation WinView
Rockwell FactoryTalk Batch (NTI)
Rockwell RSBatch (NTI)
Rosemont Hydrostatic Interface Unit (HIU) Tank Gauging System
Rovisys OPC90 Server for ABB (Bailey) systems
RTP 2000 (NTI)
RTP 2000
RTP 2200
RTP 2300
Saab Tank Gauge (VAX)
Saab Tank Gauge (AXP)
Saab Tank Gauge (NTI)
SAIC - IOWA Electric (VAX)
SAIC SAIPMS (AXP)
SAIC SAIPMS (VAX)
Sartorius B Braun MFCS/win SCADA
SATEC PM-171E Power Meter (Basic data registers only) (v.4.86B)
SATEC PM-172E Power Meter (Basic data registers only) (v.4.86B)

SATEC RPT-091 Remote Power Transducer (v.1.32)

Scanivalve (VAX)
Scanivalve (AXP)
Schlumberger ASU (autonomeus surface unit)
Schlumberger/SEME Quantum Q1000
Schneider Automation (Modicon)
Scientech P-Max
Scientech PMAX
SecondWind Phaser

SecondWind Phaser Power Transducer
SEL 2020
SEL 2030
SEL 221F via SEL 2020/2030
SEL 221G via SEL 2020/2030
SEL 251 via SEL 2020/2030
SEL 267 (ASCII) via SEL 2020/2030
SEL 279 (ASCII) via SEL 2020/2030
SEL 321 11 via SEL 2020/2030
SEL 321 12 via SEL 2020/2030
SEL 351
SEL 351 11 via SEL 2020/2030
SEL 351R
SEL 351S
SEL 387 Differential Relay, Overcurrent Relay, Data Recorder (v.SEL 387-5/387-6-xxx)
SEL 387 via SEL 2020/2030
SEL 421 Protection Automation Control
SEL 501 (ASCII) via SEL 2020/2030
SEL 501 via SEL 2020/2030
SEL 551 Native direct via Modbus RTU
SEL 551 via SEL 2020/2030
SEL 587 Native direct via Modbus RTU
SEL 587 via SEL 2020/2030
Sequencia OpenBatch
Serck Controls SCX 6 SCADA System
Shell Canada Modcomp FLIC (VAX)
Shell Canada Modcomp FLIC (AXP)
Siemens H1-S5 Sytrans (VAX)
Siemens H1-S5 Sytrans (AXP)
Siemens TELEPERM-M (N-V.24) (VAX)
Siemens TELEPERM-M (N-V.24) (AXP)
Siemens TELEPERM-XP (HPUX)
Siemens AG/TG5700 RTU (v.1016996003.50B)
Siemens Apogee
Siemens Centurion MJ-R Recloser
Siemens MJ-X

Siemens MJ-X/CM1.30
Siemens MJ-X/CM2.04
Siemens PCS @aGlance (NTI)
Siemens PCS 7
Siemens PI CS275 Interface for Siemens Teleperm-M/ME
Siemens PLC 412-2
Siemens PLC 412-2
Siemens RXS4 Meter (NTI)
Siemens S5 PLC
Siemens S7-200 PLC's
Siemens Simatic Net (TI-505, S5) (NTI)
Siemens Simatic Net S7 (NTI)
Siemens SINAUT Spectrum
Siemens SIPROTEC 7SJ62 Prot. Relay (v.4.20.10)
Siemens Spectrum (AIX)
Siemens Static Trip III via DTU3005B
Siemens T3000
Siemens Teleperm M/ME, via SYTRANS 300-CS (NTI)
Siemens Teleperm XP via XU (NTI)
Siemens Teleperm XP via XU (NTA)
Siemens Teleperm-M/ME, via SYTRANS 300-CS (VAX)
Siemens Teleperm-M/ME, via SYTRANS 300-CS (AXP)
Siemens TIWAY PLC (VAX)
Siemens WinCC
Simca 4000 (NTI)
Simca Batch On-line (NTI)
SIMRAD/Albatross (HPUX)
SISCO AXS4-ICCP OPC Server (ICCP connectivity, allows for outputs and failover)
SISCO AXS4-MMS OPC Server (UCA Connectivity)
SISCO Comtrade Utility for the PI Enterprise Server
SNC-Lavalin DAP (DUX)
SNMP (SOL)

SNMP (NTI)
SNMP Trap (NTI)
SOCCS (Encore) (DUX)
SOLAR APRIL-5000 PLCs
Solar Turbines TT4000 HMI
SQ-D/Telemecanique PLC - Anaheim Lewis Configuration 2
SQ-D/Telemecanique PLC - Anaheim Lewis Configuration 3
SQ-D/Telemecanique PLC - Anaheim SOE Test
SQ-D/Telemecanique PLC - Anaheim SOE Test Plus
SquareD
Supervisory Control and Data Access (SCADA) Environment
Suzlon S88
Syslog (NTI)
Taylor Mod 3
Taylor Mod 30
Taylor Mod 300
TCP Response (NTI)
Teledyne IV - CGT Interface (VMS)
Teledyne Vector (NTI)
Telegyr EMS (NTI)
Telog RTU (NTI)
Telvent OASyS CMX
Telvent OASyS DNA 7.X (NTI)
Telvent S/3 SCADA
Thermo LabSystems Nautilus
Thermo LabSystems Nautilus
Thermoteknix System Ltd WinCem (NTI)
TimeArray OPC Plugin (NTI)
Toshiba CIS5000 (VAX)
Toshiba CIS5000 (NTI)
Toshiba CIS5000 Random (NTI)
Toshiba TOSDIC-246 (NTI)
Toshiba TOSDIC-247 (NTI)

Traceroute (NTI)
Trane Tracer Summit System
TransDyne SCADA
Triangle Microworks SCADA Data Gateway (DNP3, IEC 60870-5-101, IEC 60870-5-103, IEC 60870-5-104, IEC 60870-5-102)
Triconex TS3000
Valmet Damatic Classic (NTI)
Valmet Damatic XD (VAX)
Valmet Damatic XD (AXP)
Valmet Damatic XD (NTI)
Valmet OASyS (DUX)
Valmet OASyS (HPUX)
Valmet OASyS (NTI)
Valmet Sentrol Sentry 300 SG Scanner (VAX)
Valmet Sentrol Sentry 300 SG Scanner (AXP)
Valmet Sentrol Sentry SG Scanner (VAX)
Valmet Sentrol Sentry SG Scanner (AXP)
Valmet XD Scanner (VAX)
Valmet XD Scanner (AXP)
VAREC MTU-77 Tank Gauge (VAX)
VAREC Tank Gauge System 4 (VAX)
VAREC Tank Gauge System 4 (AXP)
VAREC Tank Gauge System 5 (VAX)
VAREC Tank Gauge System 5 (AXP)

Vestas V80 & V90 - (through Vestas OPC Concentrator)

VG-Instruments Lab (VAX)
VG-Instruments Lab (AXP)
VG-Instruments Lab (NTI)
VIM Technologies CEMLink
Vitria BusinessWare (SOL)
Vitria BusinessWare (NTI)
Weigh-Tronix WPI-135 Indicator
Weschler Instruments Advantage Winding and LTC Thermal Monitor (v.G8T0200004)
Westinghouse 1500 General Purpose

Westinghouse Ovation
Westinghouse Ovation 1.2 to 1.5
Westinghouse Ovation 1.6 to 1.7
Westinghouse WDPF (VAX)
Westinghouse WEStation (NTI)
Westinghouse WEStation (SOL)
Westronic DDR10 (VAX)
Westronic DDR10 (AXP)
WinLinx Gateway
WMI (NTI)
Wonderware Archestra
Wonderware Batch Automation
Wonderware FactorySuite
Wonderware Industrial Application Server
WonderWare Industrial SQL COM Connector (NTI)
Wonderware InSQL
WonderWare InTouch (NTI)
Wonderware ProcessSuite
Wonderware SuiteLink
Woodward Micronet
XML (NTI)
Yokogawa 2400 DataLogger (VAX)
Yokogawa 2400 DataLogger (AXP)
Yokogawa 2400 DataLogger (NTI)
Yokogawa ACG (VAX)
Yokogawa ACG (AXP)
Yokogawa ACG (NTI)
Yokogawa ACG (NTA)
Yokogawa ACG (HPUX)
Yokogawa ACG (AIX)
Yokogawa Centap (VAX)
Yokogawa Centap Plus/CS (VAX)
Yokogawa Centap Plus/CS (AXP)
Yokogawa CS1000
Yokogawa CS3000
Yokogawa DAQSTATION DX100
Yokogawa DR 241 Series Chart Recorder

Yokogawa DR 242 Series Chart Recorder
Yokogawa DX 230 Series Chart Recorder
Yokogawa FA-M3 (NTI)
Yokogawa FastTools SCADA (AIX)
Yokogawa FastTools SCADA (NTI)
Yokogawa Gateway (Micro XL) (AXP)
Yokogawa Gateway (Micro XL) (VAX)
Yokogawa GW (AIX)
Yokogawa GW (HPUX)

Yokogawa Marex Exaquantum COM Connector (NTI)

Yokogawa YGW (VAX)
Yokogawa YGW (AXP)
Yokogawa YGW (NTI)
Yokogawa YGW (NTA)
Yokogawa YS100 (VAX)
Yokogawa YS100 (AXP)
ZIV 71RD-S1N-124B39KAB Prot. Relay

DEERHAVEN GENERATING STATION

AUXILIARY LOG "A"

Date: _____

UNIT #1	LIMITS		07:00	10:00	13:00	16:00	19:00	22:00	01:00	04:00
TURBINE PANEL	**HIGH**	**LOW**								
THROTTLE TEMP	960	940								
THROTTLE PRESS	1270	1220								
IMPULSE PRESS	850									
NO. 1 EXTRACTION PRESS	820									
NO. 2 EXTRACTION PRESS	410									
NO. 3 EXTRACTION PRESS	200									
NO. 4 EXTRACTION PRESS	77									
NO. 5 EXTRACTION PRESS	20									
COND. VACUUM		26								
ABSOLUTE BACK PRESS	3.0"	.9"								
MAIN OIL DISC. PRESS	160	145								
BEARING OIL PRESS	20	10								
MAIN OIL PUMP SUCTION	30	15								
GOV. DISC. PRESS	31	28.5								
TURBINE/ GENERATOR										
THRUST BEARING TEMP	150	120								
NO. 1 BEARING TEMP	150	120								
NO. 2 BEARING TEMP	150	120								
NO. 3 BEARING TEMP	150	120								
NO. 4 BEARING TEMP	150	120								
NO. 5 BEARING TEMP	140	120								
NO. 6 BEARING TEMP	140	120								
NO. 7 BEARING TEMP	140	120								
LP EXHAUST TEMP	125									
GLAND STEAM PRESS	6	4								
GLAND STEAM TEMP	350	250								
SEAL OIL PRESS (EXCITOR END)	44	12.5								
SEAL OIL PRESS (TX END)	44	12.5								
LOOP SEAL VACUUM										
FEEDWATER HEATERS										
NO. 1 F.W. HEATER OUT TEMP	445									
NO. 2 F.W. HEATER OUT TEMP	390									
NO. 3 F.W. HEATER OUT TEMP	325									
NO. 4 F.W. HEATER OUT TEMP	255									
NO. 5 F.W. HEATER OUT TEMP	194									
E.H. SYSTEM										
E.H. OIL TEMPERATURE	130	100								
E.H. SYSTEM PRESSURE										
E.H. SYSTEM OIL LEVEL NORMAL (Y/N)										
LUBE OIL										
LUBE OIL COOLER OUTLET TEMP	110	70								
COOLER IN SERVICE (N/S)										
LUBE OIL RESERVOIR VACUUM										
HYDROGEN										
HYDROGEN PRESSURE		0.5								
HYDROGEN PURITY		95								
HOTWELL /WATERBOX										
HOTWELL TEMP	120									
WEST WATERBOX INLET TEMP	90	65								
WEST WATERBOX OUTLET TEMP	106									
EAST WATERBOX INLET TEMP	90	65								
EAST WATERBOX OUTLET TEMP	106									
PA FANS										
ALL OIL LEVELS NORMAL (Y/N)										
UNUSUAL NOISE OR VIBRATION (Y/N)										
FD/ID FANS										
BEARING TEMPS IN LIMITS (Y/N)	140	70								
ALL OIL LEVELS NORMAL (Y/N)										
BOILER FEEDWATER PUMPS										
BEARING TEMPS IN LIMITS (Y/N)	140	70								
ALL OIL LEVELS NORMAL (Y/N)										
CHEMICAL PUMP RUNNING (Y/N)										
PALL										
RUNNING / IN SERVICE - Y/N										
CONDENSATE PUMPS										
NORTH DISCHARGE PRESS		>40								
CENTER DISCHARGE PRESS		>40								
SOUTH DISCHARGE PRESS		>40								
SEAL OIL UNIT										
SEAL OIL TEMP	120	80								
VACUUM ON SEAL OIL SYSTEM	30	25								
OIL LEVEL NORMAL (Y/N)										

OPERATOR

_____ 06:30-18:30

_____ 18:30-06:30

COMMENTS:

DEERHAVEN GENERATING STATION

AUXILIARY LOG "B"

Date: _____

UNIT #2	LIMITS		07:00	10:00	13:00	16:00	19:00	22:00	01:00	04:00
E. FD FAN FLUID DRIVE	**HIGH**	**LOW**								
BEARING TEMPERATURES IN LIMITS	140	70								
ALL OIL LEVELS NORMAL										
E. STEAM COIL HOTWELL PUMP										
NO LEAKS										
NO VIBRATION										
E. ID FAN FLUID DRIVE										
BEARING TEMPERATURES IN LIMITS	140	70								
OIL PRESSURES IN LIMITS		>30								
CUNO FILTERS TURNED										
ALL OIL LEVELS NORMAL										
W. FD FAN FLUID DRIVE										
BEARING TEMPERATURES IN LIMITS	140	70								
ALL OIL LEVELS NORMAL										
W. STEAM COIL HOTWELL PUMP										
NO LEAKS										
NO VIBRATION										
W. ID FAN FLUID DRIVE										
BEARING TEMPERATURES IN LIMITS	140	70								
OIL PRESSURES IN LIMITS		>30								
CUNO FILTERS TURNED										
ALL OIL LEVELS NORMAL										
E. GR FAN										
LUBE OIL SYSTEM PRESSURE		>85								
FILTER DP										
THRUST BEARING OIL DRAIN TEMP	130									
W. GR FAN										
LUBE OIL SYSTEM PRESSURE		>60								
FILTER DP										
THRUST BEARING OIL DRAIN TEMP	130									
BOTTOM ASH										
ASH HOPPER LEVELS NORMAL										
HYDROVEYOR OPERATION										
E. IP PUMP										
NO LEAKS										
NO VIBRATION										
W. IP PUMP										
NO LEAKS										
NO VIBRATION										
S. ASH SLURRY PUMP										
NO LEAKS										
NO VIBRATION										
N. ASH SLURRY PUMP										
NO LEAKS										
NO VIBRATION										
CIRCULATING PUMPS										
ALL OIL LEVELS NORMAL										
CIRCULATING PIT SUMP NORMAL										
COOLING TOWER										
COOLING TOWER M/U BYPASS %										
COOLING TOWER LEVEL	71	45								
FAN OIL LEVELS NORMAL										
LP SUMP										
LEVEL WITHIN LIMITS										
FLYASH										
VACUUM PUMP IN SERVICE										
NORMAL BAG HOUSE OPERATION										
NORMAL HOPPER OPERATION										
FLYASH SUMP LEVEL NORMAL										
E. BOOSTER FAN										
LUBE OIL SYSTEM PRESSURE										
FILTER DP										
W. BOOSTER FAN										
LUBE OIL SYSTEM PRESSURE										
FILTER DP										

OPERATOR

_____ 06:30-18:30

_____ 18:30-06:30

COMMENTS:

FORM DH 09-0008 revised 06/04/2010

DEERHAVEN GENERATING STATION

AUXILIARY LOG "C"

Date: _____

UNIT #2	LIMITS		07:00	10:00	13:00	16:00	19:00	22:00	01:00	04:00
TURBINE PANEL	**HIGH**	**LOW**								
THROTTLE PRESS	1895	1705								
FIRST STAGE PRESS	1425									
COLD REHEAT PRESS	544									
HOT REHEAT PRESS	490									
N0. 2 EXTRACTION PRESS	280									
NO. 3 EXTRACTION PRESS	177									
NO. 4 EXTRACTION PRESS	69									
NO. 5 EXTRACTION PRESS	23									
CONDENSOR VACUUM										
ABSOLUTE BACK PRESS	5.5									
BEARING OIL PRESS										
MAIN OIL PUMP SUCTION										
MAIN OIL PUMP DISCHARGE										
GLAND STEAM HEADER PRESS										
TURBINE/ GENERATOR										
THRUST BEARING REAR FACE										
THRUST BEARING FRONT FACE										
NO. 1 BEARING TEMP	160	>100								
NO. 2 BEARING TEMP	160	>100								
NO. 3 BEARING TEMP	160	>100								
NO. 4 BEARING TEMP	160	>100								
NO. 5 BEARING TEMP	160	>100								
NO. 6 BEARING TEMP	160	>100								
NO. 7 BEARING TEMP	160	>100								
LP EXHAUST TEMP (TX)	175									
LP EXHAUST TEMP (GEN)	175									
GLAND STEAM TEMP	325	250								
SEAL OIL PRESS (EXCITOR END)	12.5 ^ H2									
SEAL OIL PRESS (TX END)	12.5 ^ H2									
HYDROGEN PRESSURE	60	0.5								
HYDROGEN PURITY		95								
LOOP SEAL VACUUM										
LUBE OIL RESERVOIR VACUUM										
FEEDWATER HEATERS										
NO. 1 F.W. HEATER OUT TEMP	473									
NO. 2 F.W. HEATER OUT TEMP	408									
NO. 3 F.W. HEATER OUT TEMP	367									
NO. 4 F.W. HEATER OUT TEMP	297									
NO. 5 F.W. HEATER OUT TEMP	228									
NO. 6 F.W. HEATER OUT TEMP	163									
EXCITER										
EXCITER FIELD CURRENT										
EXCITER FIELD VOLTAGE										
GLAND STEAM CONDENSER										
BLOWER IN SERVICE										
GLAND STEAM COND. VACUUM										
E.H. SYSTEM										
E.H PRESS										
E.H. TEMP	130	100								
E.H. ACCUMULATOR PRESS										
E.H. KIDNEY PUMP DP										
COAL FEEDERS										
ALL OIL LEVELS NORMAL										
NO COAL LEAKS										
BURNER COOLING FAN										
NO ABNORMAL NOISE/VIBRATION										
BURNER DECK										
NO COAL LEAKS										
NO GAS LEAKS										
IGNITER COOLING FAN										
NO ABNORMAL NOISE/VIBRATION										
E. AIR HEATER										
GUIDE BEARING TEMP	160	110								
GUIDE BEARING OIL PRESS										
SUPPORT BEARING TEMP	160	115								
SUPPORT BEARING OIL PRESS		0								
W. AIR HEATER										
GUIDE BEARING TEMP	160	110								
GUIDE BEARING OIL PRESS										
SUPPORT BEARING TEMP	160	115								
SUPPORT BEARING OIL PRESS		0								

OPERATOR

_____ 06:30-18:30

_____ 18:30-06:30

COMMENTS:

FORM DH 09-0009 revised 03/8/13

DEERHAVEN GENERATING STATION

AUXILIARY LOG "D"

Date: _____

	LIMITS		07:00	10:00	13:00	16:00	19:00	22:00	01:00	04:00
UNIT 1 NORTH AIR COMPRESSOR	**HIGH**	**LOW**								
ALARMS										
OIL LEVEL										
UNIT 1 SOUTH AIR COMPRESSOR										
ALARMS										
OIL LEVEL										
UNIT 2 NORTH AIR COMPRESSOR										
ALARMS										
OIL LEVEL										
UNIT 2 SW AIR COMPRESSOR										
ALARMS										
OIL LEVEL										
UNIT 2 SE AIR COMPRESSOR										
ALARMS										
OIL LEVEL										
UNIT 2 BOILER FEEDWATER PUMPS										
WEST LUBE OIL TEMPERATURE										
CENTER LUBE OIL TEMPERATURE										
EAST LUBE OIL TEMPERATURE										
BEARING TEMPERATURES IN LIMITS	140	70								
ALL OIL LEVELS NORMAL										
PALL										
RUNNING / IN SERVICE - Y/N										
TURBOTOC										
RUNNING / IN SERVICE - Y/N										
WATER LEVEL IN SIGHT GLASS -Y/N										
DRAIN METER READING										
UNIT 2 HOTWELL /WATERBOX										
HOTWELL TEMPERATURE		100								
WEST WATERBOX INLET TEMP	90	65								
WEST WATERBOX OUTLET TEMP	106									
EAST WATERBOX INLET TEMP	90	65								
EAST WATERBOX OUTLET TEMP	106									
UNIT 2 SEAL OIL UNIT										
H2 SIDE SEAL OIL TEMPERATURE	120	80								
AIR SIDE SEAL OIL TEMPERATURE	120	80								
UNIT 2 HEATER DRAIN PUMP										
E or W & OIL LEVEL NORMAL										
UNIT 2 CONDENSATE PUMPS										
EAST COOLING WATER PRESS										
CENTER COOLING WATER PRESS										
WEST COOLING WATER PRESS										
ALL OIL LEVELS NORMAL										
PULVERIZERS & PA FANS										
ALL OIL LEVELS NORMAL										
EAST CLASSIFIER OIL PRESS		10								
CENTER CLASSIFIER OIL PRESS		10								
WEST CLASSIFIER OIL PRESS		10								
CLASSIFIER COOLING PUMP (HVAC)										
EAST DISCHARGE PRESSURE										
WEST DISCHARGE PRESSURE										
UNIT 1 CIRCULATING PUMPS										
ALL OIL LEVELS NORMAL										
RAW WATER PUMPS OK										
UNIT 1 COOLING TOWER FANS										
ALL OIL LEVELS NORMAL										
PUMP HOUSE										
FIRE PUMPS OK										
HIGH HEAD PUMPS OK										
DEEPWELL PUMPS OK										
AUX. COOLING TOWER FANS										
NOISE & VIBRATION NORMAL										
PLANT DRAIN SUMP										
LEVEL WITHIN LIMITS										
NO OIL VISIBLE										
FUEL OIL STORAGE TANKS										
TRANSFER PUMPS - NO LEAKS VIS.										
NO OIL VISIBLE										
NO STANDING WATER										
NORTH TANK LEVEL (TAPE)	38' 6"									
SOUTH TANK LEVEL (TAPE)	38' 6"									
DIESEL TANK LEVEL (TAPE)	37' 6"									
NEUTRALIZATION BASIN										
LEVEL WITHIN LIMITS										
LIFT STATION										
NOT IN ALARM										
NOT OVERFLOWING										

06:30 - 1830 | 1830 - 06:30 | FORM DH 09-0010 | revised 04/22/2011

DEERHAVEN GENERATING STATION

AUXILIARY LOG "G"

Shift ____ **Date:**_____ **Shift** ____ **Date:**_____

UNIT #2	IN SERVI	NOISE/ ALARMS	LEAKS	OIL LEVELS	BELTS	FILTER DP	VENT FAN	IN SERVI	NOISE/ ALARMS	LEAKS	OIL LEVELS	BELTS	FILTER DP	VENT FAN
PEBBLE LIME LOADING AND STORAGE		Y/N	Y/N						Y/N	Y/N				
PL VACUUM BLOWER 0915 (NORTH)														
PL VACUUM BLOWER 0916 (SOUTH)														
PL TRANSPORT BLOWER 1021 (NORTH)														
PL TRANSPORT BLOWER 1022 (CENTER)														
PL TRANSPORT BLOWER 1023 (SOUTH)														
PL FEEDER 1001 (West Upper)														
PL FEEDER 1002 (East Upper)														
PL FEEDER 1005 (West Lower)														
PL FEEDER 1006 (East Lower)														
PL SILO VIBRATOR														
POTABLE WATER VFD PUMP														
POTABLE WATER VFD PUMP														
POTABLE WATER VFD MOTOR														
ARSENIC MITIGATION SYSTEM														
SCREW CONVEYOR														
VIBRATING FEEDER														
WATER SKID														
WASTE ASH SILO PUMP 8823														
BOOSTER PUMP 2-1 (PMP-8111) SOUTH														
BOOSTER PUMP 2-2 (PMP-8112) NORTH														
UREA SOLUTION TANK														
TANK 3500					(temp = 'F)							(temp = 'F)		
FEEDPUMP 2-1 3515 (NORTH)														
FEEDPUMP 2-1 3525 (SOUTH)														
HYDRATED LIME TO TURBOSORP														
HL SILO FEEDER 2505 (TOP)														
HL SILO FEEDER 2525 (BOTTOM)														
HL TRANSPORT BLOWER 2522 (EAST)														
HL TRANSPORT BLOWER 2521 (WEST)														
VIBRATOR														
HYDRATED LIME TO SILO														
HYDRATOR FEEDER 2520 (EAST)														
HYDRATOR FEEDER 2510 (WEST)														
HL TRANSPORT BLOWER 2511 (NORTH)														
HL TRANSPORT BLOWER 2512 (SOUTH)														
CRUSHED LIME HYDRATING														
HYDRATOR 2-1 - SHAFTS FOR STAGE 1W														
HYDRATOR 2-1 - SHAFTS FOR STAGE 2W														
HYDRATOR 2-1 - SHAFTS FOR STAGE 3W														
HYDRATOR 2-2 - SHAFTS FOR STAGE 1E														
HYDRATOR 2-2 - SHAFTS FOR STAGE 2E														
HYDRATOR 2-2 - SHAFTS FOR STAGE 3E														
CRUSHED LIME BAGHOUSE (EAST)														
CRUSHED LIME BAGHOUSE (WEST)														
CRUSHED LIME BIN (EAST)														
CRUSHED LIME BIN (WEST)														
BAGHOUSE FEEDER 2130 (EAST)														
BAGHOUSE FEEDER 1130 (WEST)														
SCREW CONVEYOR 2201/2202 (EAST)														
SCREW CONVEYOR 1201/1202 (WEST)														
ASH SURGE BIN														
AERATION BLOWER 8531 (NORTH)														
AERATION BLOWER 8632 (SOUTH)														
BIN 2-1 OUTLET PLATCO VALVE (WEST)														
BIN 2-1 INLET FEEDER 8512 (WEST)														
BIN 2-2 OUTLET PLATCO VALVE (EAST)														
BIN 2-2 INLET FEEDER 8612 (EAST)														
EAST AIR SLIDE														
ASH TRANSPORT BLOWER 8618 (EAST)														
ASH TRANSPORT BLOWER 8617 (WEST)														
BAG HOUSE CLEANING														
BAG HOUSE CLEANING BLOWER 8423 (E)														
BAG HOUSE CLEANING BLOWER 8422 (C)														
BAG HOUSE CLEANING BLOWER 8421 (W)														
WEST AIR SLIDE														
ASH TRANSPORT BLOWER 8516 (EAST)														
ASH TRANSPORT BLOWER 8515 (WEST)														
AIR SLIDE BLOWERS														
AIR SLIDE BLOWER 8501 (WEST)														
AIR SLIDE BLOWER 8502 (CENTER)														
AIR SLIDE BLOWER 8503 (EAST)														
INSTRUMENT AIR														
NORTH AIR COMPRESSOR - 9312														
SOUTH AIR COMPRESSOR - 9311														
AIR DRYERS - 9314 (left) / 9315 (right)														
CONDENSATE SKID														
CONDENSATE PUMP 1 - 4301 (WEST)														
CONDENSATE PUMP 2 - 4302 (EAST)														
CONDENSATE TANK														
DESUPERHEATER SKID														
DESUPERHEATER PUMP 1 - 4011 (WEST)														
DESUPERHEATER PUMP 2 - 4012 (EAST)														
SUMPS		**LEVEL**	**CLEAN**	**# 1**	**# 2**		**pumped**		**LEVEL**	**CLEAN**	**# 1**	**#2**		**pumped**
TURBOSORP AREA														
UREA STORAGE AREA														
ASH SILO AREA														
BYPRODUCT SILO														
FLUIDIZING BLOWER - 8811 (WEST)														
FLUIDIZING BLOWER - 8812 (EAST)														

OPERATOR 0630-1830 1830-0630 COMMENTS ON REVERSE

H 09-0009 revised 02/5/2013

BARRIER TAPE LOGSHEET

DATE:

REQUESTOR:

TAPE COLOR (CHECK ONE): RED YELLOW

HAZZARD/LOCATION

EXPECTED DURATION:

PERSON ERECTING TAPE:

POINT OF CONTACT:

SHIFT ENGINEER NOTIFIED YES NO

SHIFT ENGINEER:

BARRIER TAPE REMOVED

DATE:

BARRIER TAPE REMOVED BY:

REASON:

CONTRACTOR / VISITOR QUICK LOG SHEET

DATE: _____

SHIFT: 06:00 - 19:00

OFFICER _____

TIME	COMPANY	BADGE NUMBER	TIME	COMPANY	BADGE NUMBER

CONTRACTOR / VISITOR QUICK LOG SHEET

DATE: _____

SHIFT: 06:00 - 19:00

OFFICER _____

TIME	COMPANY	BADGE NUMBER	TIME	COMPANY	BADGE NUMBER

CONTROL ROOM LOG

DEERHAVEN GENERATING STATION

DATE:

	LIMITS		7:00	9:00	11:00	13:00	15:00	17:00	19:00	21:00	23:00	1:00	3:00	5:00
#1 STEAM TURBINE	**HIGH**	**LOW**												
OPACITY (6-Minute Average)	20													
Voltage Regulator NERC Compliant ***	NO	NO												
#2 STEAM TURBINE														
NOX (3-Hour Average)	0.46													
SO2 (1-Hour Average)	1.2													
OPACITY (6-Minute Average)	20													
Mercury Instantaneous	1.2													
Mercury 24 Hour Average	1.2													
Mercury 30 Day Average	1.2													
Precipitor Power Setting	6%	3%												
TR Sets Out of Service at Beginning of Shift														
Voltage Regulator NERC Compliant (Unit Summary) *	NO	NO												
NOX Fgas Cal Current (Every Mon & Thurs)														
SO2 Fgas CalCurrent (Every Mon & Thurs)														
#1 COMBUSTION TURBINE														
Dispatch Request Time														
Start Time														
On Line Time														
Full Load Time														
Voltage Regulator NERC Compliant **	NO	NO												
#2 COMBUSTION TURBINE														
Dispatch Request Time														
Start Time														
On Line Time														
Full Load Time														
Voltage Regulator NERC Compliant **	NO	NO												
#3COMBUSTION TURBINE														
NOX (Gas 15ppm)(Oil 42ppm)														
Dispatch Request Time														
Start Time														
On Line Time														
Full Load Time														
Voltage Regulator NERC Compliant **	NO	NO												

***= If Voltage Regulator is not in Auto and Controlling Voltage, The unit is not in compliance with NERC standard and System Control Shall be Notified and documented.**

****= If Voltage Regulator is not in Voltage Ctrl, The unit is not in compliance with NERC standard and System Control Shall be Notified and documented.**

Revised 03/23/2015

*****= If Voltage Regulator is not in Auto when the unit is online, The unit is not in compliance with NERC standard and System Control Shall be Notified and documented.**

0630-1830_____ 1830-0630_____

Step 1: You can review or print the daily report instructions from the link below

Daily Report Instructions

Step 2: Choose the report date

The report should automatically choose the correct date but you can choose another.

Report Date 8/30/2018

Step 3: Enter fuel deliveries

Step 4: Review Readings and Submit them to PI

The Review Readings sheet has step by step instructions along the top

Deerhaven Fuel Delivery Page (Coal, Oil, Urea, & Lime)

Entry Date
8/30/2018

Valid	Delivery Time	Fuel Type	Amount	Truck/Car Number	Ticket Number
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					

Total #2 Fuel Delivered	**0**	**gallons**
Total #6 Fuel Delivered	**0**	**gallons**
Total Coal Delivered	**0.00**	**tons**
Total Urea Delivered	**0.00**	**gallons**
Total Lime Delivered	**0.00**	**tons**

Report Date **8/30/2018**

GENERATION

Meter	Last Reading	Current Reading	MWH Output	Submit
STEAM GEN. NO. 1	264,045	264,661	616	616
STEAM GEN. NO. 2	792,458	794,241	1,783	1,783
COMBUSTION TRB #1	3,881.228	3,881.228	0.0	0.0
COMBUSTION TRB #2	4,004.000	4,004.000	0.0	0.0
COMBUSTION TRB #3	35,178.000	35,178.000	0.0	0.0

AUXILLIARIES

	Last Reading		MWH	Submit
GEN #1 AUX. RUN	73,914.0	73,981.0	67.0	67.0
GEN #1 AUX. START	68,930.0	68,933.0	3.0	3.0
GEN #1 BLACK START	0.000	0.000	0.0	0.0
GEN #2 AUX. RUN A	88,551.0	88,551.0	0.0	0.0
GEN #2 AUX. RUN B	31,695.0	31,861.0	166.0	166.0
GEN #2 AUX. START	18,436.0	18,611.0	175.0	175.0
GEN #2 AUX. Retro_T-73	88,063.000	88,092.852	29.85	29.85
GEN #2 AUX. Retro_T-74 *	23,474.500	23,501.799	0.00	0.00
PUMP HOUSE AUX.	9,431	9,446	6.0	6.0
GT #1 AUX.	1,306.000	1,306.818	0.800	0.8
GT #2 AUX.	1,992,578	1,992,920	0.3	0.3
GT #3 AUX.	2,981.000	2,984.003	3.0	3.0

GENERATOR HOURS

	Last Reading		Hours	Submit
GEN #1	50,753.6	50,777.6	24.0	24.0
GEN #2	16,750.0	16,774.0	24.0	24.0
GT #1	13,631.1	13,631.1	0.0	0.0
GT #2	13,602.3	13,602.3	0.0	0.0
GT #3	11,736.7	11,736.7	0.0	0.0

COAL FEEDERS

	Last Reading		Tons	Submit
FEEDER E1	132,739,776	132,800,328	30.28	30.28
FEEDER E2	120,163,096	120,163,096	0.00	0.00
FEEDER C1	133,032,072	133,503,392	235.66	235.66
FEEDER C2	133,587,784	133,990,808	201.51	201.51
FEEDER W1	104,395,616	104,395,616	0.00	0.00
FEEDER W2	116,121,600	116,121,600	0.00	0.00
TOTAL COAL CONSUMED			467.45	467.45

#6 OIL CONSUMED

	Last Reading		BBLS Used	Submit
GEN #1	492	492	0.0	0.0

GAS CONSUMED

	Last Reading		scf Used	Submit
GEN #1	11,551.4824219	11,559.1630859	7,680,664	7,680,664
GEN #2	2,703.5166016	2,711.9777832	8,461,182	8,461,182
GT #1	57,124,516	57,124,516	0	0
GT #2	33,573,880	33,573,880	0	0
GT #3	4,892,118	4,892,118	0	0

#2 OIL CONSUMED

	Last Reading		Gallons Used	Submit
GEN #1	0.483	0.483	0.0	0.0
GT #1	3,619,796	3,619,796.0	0.0	0.0
GT #2	132,339	132,339.0	0.0	0.0
GT #3	1,672,676	1,672,676.0	0.0	0.0

WATER USAGE

2696.682453	Last Reading		Gallons Used	Submit
BOILER NO 1 MAKEUP	21,574,773.4	21,586,804.7	12,031.3	12,031.3
BOILER NO1 BLOWDOWN	4,126,938.0	4,126,938.0	0.0	0.0
BOILER NO 2 MAKEUP	182,677	203,209.0	20,532.0	20,532.0
BOILER NO 2 BLOWDOWN	65,310	65,356.0	850.5	850.5
CCW NO 1 MAKEUP	84,621.0	84,636.0	15.0	15.0
CCW NO 2 MAKEUP	49,500.0	49,500.0	0.0	0.0
CLNG TWR 2 MAKEUP	30,578,946	30,587,910.0	896,400.0	896,400.0
CLNG TWR 2 BLOWDOWN	312,102	312,199.0	97,000.0	97,000.0
DEEP WELL	1,618,379	1,619,400.0	1,021.0	1,021.0

RETROFIT CONSUMABLES

	DCS Reading	Yesterday's DCS Reading	Tank Volumes	Submit
UREA Storage Tank (inches)	163.54	163.54	44,487	44,486.7
Peb Lime Storage Tank (% full)	71.23	74.20	38,557	38,557.0
Pebble Lime Bin 2-1 Tank (feet)	-0.01	-0.01	0	0.0
Pebble Lime Bin 2-2 Tank (feet)	-0.02	-0.02	0	0.0
Hydrated Lime Storage Tank (in)	32.74	27.58	108,033	108,033.4
PLAS Lime Used (tons)	0	0.0		0.0

Gas Yard

	Last Reading		mscf Used	Submit
Gas Digital Meter	29,741,940	29,757,808	15,868,000.0	15,868,000.0

Report Date	8/30/2018			
	Oil in Storage			Submit
	Last Reading from Report	Today Tank Level (ft)	Today Reading from Tape	
North Bulk Tank (#6) bbls	0.0	0.000	0.0	0.0
South Bulk Tank (#6) bbls	24,113.9	17.300	24,113.9	24,113.9
Diesel Tank (#2) gallons	250,111.0	11.80	250,111.0	250,111.0
North Bulk Tank Temp	73.4		73.4	73.4
South Bulk Tank Temp	72.9		73.5	73.5
Diesel Tank Temp	85.5		84.0	84.1

Tape	Feet (decimal)
0' 0"	**0**
17' 4"	**17.33333333**
11' 10"	**11.83333333**

	Fuel Deliveries (Enter 0 if no deliveries)	
No2 Oil Delivered (gals)	0.00	0.00
No6 Oil Delivered (bbls)	0.00	0.00
Coal Delivered (tons)	0.00	0.00
Urea Delivered (gals)	0.00	0.00
QuickLime Delivered (tons)	0.00	0.00
	Unit Online/Offline Time (ex. 12:40)	
	Unit 1 **On**line Time	00:00
	Unit 1 **Off**line Time	24:00
	Unit 2 **On**line Time	00:00
	Unit 2 **Off**line Time	24:00
	GT 1 **On**line Time	
	GT 1 **Off**line Time	
	GT 2 **On**line Time	
	GT 2 **Off**line Time	
	GT 3 **On**line Time	
	GT 3 **Off**line Time	
	Hours on Fuel	
	UNIT ONE HOURS ON GAS	24
	UNIT ONE HOURS ON NO.6	0
	UNIT ONE HOURS ON NO.2	0
	UNIT TWO HOURS ON GAS	0
	UNIT TWO HOURS ON COAL	24
	GT-1 HOURS ON GAS	0
	GT-2 HOURS ON GAS	0
	GT-3 HOURS ON GAS	0
	GT-1 HOURS ON NO. 2	0
	GT-2 HOURS ON NO. 2	0
	GT-3 HOURS ON NO. 2	0
	Misc	
	H2 Skid Right Side	600
	H2 Skid Left Side	1300
	LP Tank	0
NOx Daily Average	NOx Daily Average	0.2435
0.2436		
NOx Year to Date Average	NOx Year to Date Average	0.338
0.2746		
	Input Operator	NEJBAUER
	Supervisor	MATHENY

Comment:

Fuel Deliveries

	8/30/2018	8/31/2018		
	PRS:DH_FuelDeliv_Fuel_Type	PRS:DH_FuelDeliv_Amount	PRS:DH_FuelDeliv_Truck_Num	PRS:DH_FuelDeliv_Ticket_Nur
Delivery Time	**Fuel Type**	**Amount**	**Truck/Train Car Number**	**Ticket Number**
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
	Total #2 Fuel Oil	**0**	**gallons**	
	Total #6 Fuel Oil	**0**	**gallons**	
	Total Coal	**0.00**	**tons**	
	Total Urea	**0.00**	**gallons**	
	Total Pebble/QuickLime	**0.00**	**tons**	

DEERHAVEN GENERATING STATION
SHIFT SUPERVISOR: MATHENY
PREPARED BY: NEJBAUER

GAINESVILLE, FLORIDA
DATE OF THIS REPORT: 8/30/2018

GENERATION

Meter	Reading	MWH Output
STEAM GEN. NO. 1	264,661.0	
LAST READING	264,045.0	616.0
STEAM GEN. NO. 2	794,241.0	
LAST READING	792,458.0	1,783.0
COMBUSTION TRB #1	3,881.2	
LAST READING	3,881.2	0.0
COMBUSTION TRB #2	4,004.0	
LAST READING	4,004.0	0.0
COMBUSTION TRB #3	35,178.0	
LAST READING	35,178.0	0.0
TOTAL GROSS GENERATION:		**2,399.0**
PUMP HOUSE (included in #1 Aux)	9,446.0	
LAST READING (see notes)	9,431.0	6.0
AUXILLIARIES		
GEN #1 AUX. RUN	73,981.0	
LAST READING	73,914.4	67.0
GEN #1 AUX. START	68,933.0	
LAST READING	68,930.0	3.0
GEN #1 BLACK START	0.0	
LAST READING	0.0	0.0
GEN #2 AUX. RUN A	88,551.0	
LAST READING	88,551.0	0.0
GEN #2 AUX. RUN B	31,861.0	
LAST READING	31,695.3	166.0
GEN #2 AUX. START	18,611.0	
LAST READING	18,435.6	175.0
GEN #2 AUX. RETRO T-73	88,092.9	
LAST READING	88,063.2	29.9
GEN #2 AUX. RETRO T-74 *	23,501.8	
LAST READING	23,474.5	0.0
GT #1 AUX.	1,306.8	
LAST READING	1,306.1	0.8
GT #2 AUX.	1,992,920.0	
LAST READING	1,992,578.0	0.3
GT #3 AUX.	2,984.0	
LAST READING	2,981.0	3.0
TOTAL AUXILIARIES:		**445.0**
TOTAL GROSS GENERATION:		2,399.0
TOTAL NET GENERATION:		**1,954.0**

UNITS IN SERVICE

UNIT	Time In	Time Out	Yesterday	Today	This Day
GEN #1	00:00	24:00	50,753.6	50,777.6	24.0
GEN #2	00:00	24:00	16,750.0	16,774.0	24.0
GT #1			13,631.1	13,631.1	0.0
GT #2			13,602.3	13,602.3	0.0
GT #3			11,736.7	11,736.7	0.0

GENERAL FUEL USAGE

GENERATION ON NO. 6 FUEL OIL

Unit	Gross Gen	Net Gen	BBLS @ 60	Gross BTU:KWH	Net BTU:KWH
GEN #1	0.0	0.0	0.0	0.0	0.0

GENERATION ON NO. 2 FUEL OIL

UNIT	Gross Gen	Net Gen	GALS @ 60	Gross BTU/KWH	Net BTU:KWH
GEN #1	0.0	0.0	0.0	0.0	0.0
GT #1	0.0	0.0	0.0	0.0	0.0
GT #2	0.0	0.0	0.0	0.0	0.0
GT #3	0.0	0.0	0.0	0.0	0.0

GENERATION ON NATURAL GAS

UNIT	Gross Gen	Net Gen	Cubic Feet	Gross BTU/KWH	Net BTU:KWH
GEN #1	616.0	550.2	7,680,664.0	12,669.4	14,184.5
GEN #2	758.0	598.6	8,461,182.0	11,341.9	14,363.2
GT #1	0.0	-0.8	0.0	0.0	0.0
GT #2	0.0	-0.3	0.0	0.0	0.0
GT #3	0.0	-3.0	0.0	0.0	0.0

GENERATION ON COAL

UNIT	Gross Gen	Net Gen	Tons	Gross BTU/KWH	Net BTU/KWH
GEN #2	1,025.0	809.4	467.45	11,342.0	14,363.2

COAL

Feeders	Meters	Tons
FEEDER E1	132,800,328	
LAST READING	132,739,776	30.28
FEEDER E2	120,163,096	
LAST READING	120,163,096	0.00
	Total East	30.28
FEEDER C1	133,503,392	
LAST READING	133,032,072	235.66
FEEDER C2	133,990,808	
LAST READING	133,587,784	201.51
	Total Center	437.17
FEEDER W1	104,395,616	
LAST READING	104,395,616	0.00
FEEDER W2	116,121,600	
LAST READING	116,121,600	0.00
	Total West	0.00
Total for all Feeders		**467.45**

COAL CONSUMED TONS **467.45**

UNIT ONE HOURS ON GAS	24.0
ON NO.6	0.0
UNIT ONE HOURS ON NO.2	0.0
UNIT TWO HOURS ON GAS	0.0
UNIT TWO HOURS ON COAL	24.0
GT-1 HOURS ON GAS	0.0
GT-2 HOURS ON GAS	0.0
GT-3 HOURS ON GAS	0.0
GT-1 HOURS ON NO. 2	0.0
GT-2 HOURS ON NO. 2	0.0
GT-3 HOURS ON NO. 2	0.0

Notes

If DH2 is on, either 70%(DH1 on) or 100% (DH1 off) of PH is subtracted from DH1 AUX and allocated to DH2 AUX.

* As of 4-7-2010, T-74 reading is not being used.

FUEL HEAT CONTENTS USED				
GAS BTU'S/FT³	1,016.1	#2 OIL BTU'S/GAL	138,102.6	
COAL BTU/LB	12,434.8	#6 OIL BTU'S/GAL	150,909.6	

COMMENTS AND SYSTEM DISTURBANCES:

NO. 6 Fuel Oil in Storage

Tank	DCS Feet	Tape Feet	BBLS @ 60	Temp	API
BULK NORTH	-0.57	0.00	0.0	73.7	14
BULK SOUTH	17.69	17.30	24,113.9	73.7	14
BBLS IN STORAGE			24,113.9		

No. 2 Fuel Oil in Storage

Tank	DCS Feet	Tape Feet	GALS @ 60	Temp	API
DIESEL TANK	11.95	11.80	250,111.0	84.5	36
GALS IN STORAGE			250,111.0		

Fuel To Storage

NO. 6 FUEL OIL	0.0	UREA Delivered	gals
NO. 2 FUEL OIL	0	LIME Delivered	0.0 tons

Tons Coal in Storage

ON HAND	144,043
RECEIVED	0
BURNED	467
COAL ON HAND	143,575

RETROFIT TANKS	Today's Reading	Todays Volume	Yesterdays Volume	
UREA Storage Tank (inches)	163.54	44,487	44,487	gallons
Peb Lime Storage Tank (% full)	71.23	40,164	38,557	tons
Pebble Lime Bin 2-1 Tank (feet)	-0.01	0	0	tons
Pebble Lime Bin 2-2 Tank (feet)	-0.02	0	0	tons
Hydrated Lime Storage Tank (in)	32.74	108,033	81,292	gallons

Gas Yard

	Meter	Volume
CORRECTED	29,757,808	15,868,000.0
LAST READING	29,741,940	

H2 SKID

RIGHT SIDE PRESSURE	600	DH1 H2 Flow Total (scf)	391.1
LEFT SIDE PRESSURE	1,300	DH2 H2 Flow Total (scf)	278.4

LP TANK

TANK LEVEL	0

WATER USE DATA

	Meter	Gallons Used
BOILER NO 1 MAKEUP	21,586,804.7	
LAST READING	21,574,773.4	12,031.3
BOILER NO 2 MAKEUP	203,209.0	
LAST READING	182,677.0	20,532.0
	Total	32,563.3
BOILER NO 1 BLOWDOWN	4,126,938.0	
LAST READING	4,126,938.0	0
BOILER NO 2 BLOWDOWN	65,356.0	
LAST READING	65,309.6	850.5
	Total	850.5
CCW NO 1 MAKEUP	84,636.0	
LAST READING	84,621.0	15.0
CCW NO 2 MAKEUP	49,500.0	
LAST READING	49,500.0	0.0
	Total	15.0
CLNG TWR 1 MAKEUP	575,820,687.5	
LAST READING	575,328,250.0	535,876.6
CLNG TWR 2 MAKEUP	30,587,910.0	
LAST READING	30,578,946.0	896,400.0
AUX TWR MAKEUP		-262,676.6
	Total	1,169,600.0
CLNG TWR 1 BLOWDOWN	45,951,804.7	
LAST READING	45,924,343.8	0.0
CLNG TWR 2 BLOWDOWN	312,199.0	
LAST READING	312,102.0	97,000.0
	Total	97,000.0
TOTAL WATER PROCESSED		**1,203,028.8**
DEEP WELL	1,619,400.0	
LAST READING	1,618,379.0	1,021.0

RAINFALL TODAY (IN)	0.9
BAROMETRIC PRESSURE (inHg)	30.1

PROCESS PLANT DATA SUMMARY

WATER SUMMARY (GAL)

ASH POND BLOWDOWN	311,020
BRINE CONC. FEED	265,720
BRINE CONC. PRODUCT	256,060
DEMINERALIZER FEED	27,146
FET GROUNDWATER	1,102,260
CTM TANK FEED	1,288,800
CTM TANK EFFLUENT	1,169,600
SPRAY DRYER FD FLOW	3,489
FET BACKWASH WATER	94,740

CHEMICALS USED

QUICKLIME (T)	0.96
SODA ASH (T)	0.20
CATION PLMR 1181 (L)	37.56
ANION PLMR 1100 (L)	2.92
CARBON DIOXIDE (L)	168.00

FUEL CONSUMPTION

NATURAL GAS (CU FT)	45,374

POWER CONSUMPTION (KWH)

BRINE CONC.	10,710
BRINE CONC. COMP.	14,900
SPRAY DRYER	1,030
FET/PWT	3,300
TOTAL KWH USED	**29,940**

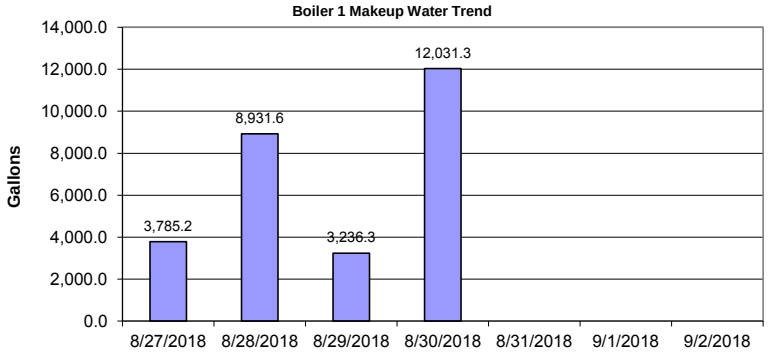
AQCS CONSUMABLES

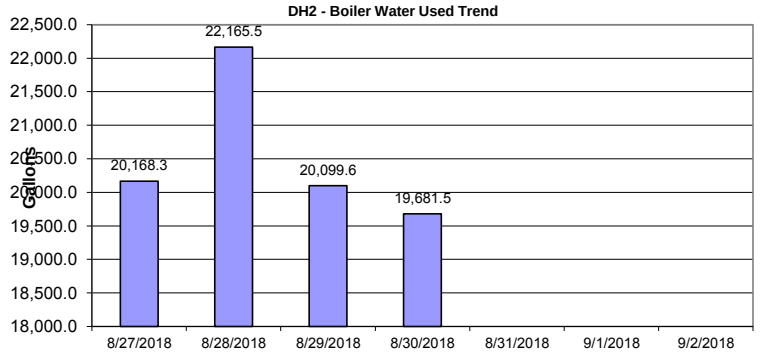
PLAS Lime USED (tons)	0
UREA USED (gallons)	0
PBL DayBins Output (tons)	0
HYDRATED LIME USED (gals)	26741
TOTAL LIME USED (tons)	106.960

(Hydrated lime plus PLAS use)

DEERHAVEN GENERATING UNITS TREND ANALYSIS
08/27/2018 to 09/02/2018

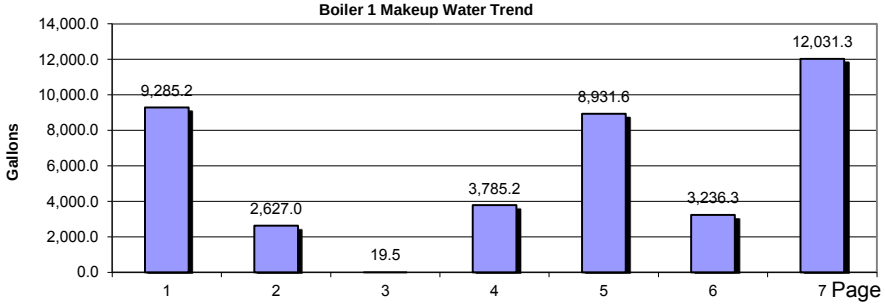
DESCRIPTION		Monday 08/27/18	Tuesday 08/28/18	Wednesday 08/29/18	Thursday 08/30/18	Friday 08/31/18	Saturday 09/01/18	Sunday 09/02/18	**Current Week Average**
TOTAL DEERHAVEN PLANT									
Total Gross Generation	MWH	3,491.0	3,062.3	2,425.2	2,399.0				**2,844.4**
Total Auxiliaries	MWH	477.1	462.0	441.9	445.0				**456.5**
Total Net Generation	MWH	3,013.9	2,600.3	1,983.3	1,954.0				**2,387.9**
Percent Auxiliary	%	13.7	15.1	18.2	18.5				**16.4**
Average Gross Load	MWH	145.5	127.6	101.0	100.0				**118.5**
DEERHAVEN UNIT 2									
Gross Generation	MWH	2,787.0	2,379.0	1,800.0	1,783.0				**2,187.3**
Net Generation	MWH	2,382.7	1,986.5	1,431.8	1,407.9				**1,802.2**
NET/Gross	%	85.5	83.5	79.5	79.0				**81.9**
Average Gross Load	MWH	116.1	99.1	75.0	74.3				**91.1**
Net Heat Rate	BTU/KWH	12,419.5	12,747.0	14,205.7	14,363.2				**13,433.8**
Natural Gas Burned	Cubic Feet	7,765,625	7,486,817	7,795,166	8,461,182				**7,877,197**
Coal Burned	Tons	872.6	712.3	499.4	467.5				**637.9**
Coal on Hand	Tons	145,254.4	144,542.1	144,042.7	143,575.3				**144,353.6**
Coal Reserve (1800 tons/day)	Days	80.7	80.3	80.0	79.8				**80.2**
Boiler Makeup	Gallons	20,882.0	24,314.0	31,397.0	20,532.0				**24,281.3**
Boiler Blowdown	Gallons	713.7	2,148.5	11,297.4	850.5				**3,752.5**
Boiler Water Used	Gallons	20,168.3	22,165.5	20,099.6	19,681.5				**20,528.7**
Daily NOx Average	lbs/MMBTU	0.290	0.257	0.240	0.243				**0.257**
Year to Date NOx Average	lbs/MMBTU	0.338	0.338	0.338	0.338				**0.338**
DEERHAVEN UNIT 1									
Gross Generation	MWH	704.0	641.0	619.0	616.0				**645.0**
Net Generation	MWH	632.2	572.3	546.1	544.2				**573.7**
NET/Gross	%	89.8	89.3	88.2	88.3				**88.9**
Average Gross Load	MWH	29.3	26.7	25.8	25.7				**26.9**
Net Heat Rate	BTU/KWH	13,971.1	14,135.8	14658.7	14184.5				**14,237.5**
Natural Gas Burned	Cubic Feet	8,725,586	7,995,117	7,901,367	7,680,664				**8,075,684**
#6 Oil on Hand	BBL	24,113.9	24,146.1	24,113.9	24,113.9				**24,121.9**
#6 Oil Burned	BBL	0.0	0.0	0.0	0.0				**0.0**
#6 Oil to Storage	BBL	0.0	0.0	0.0	0.0				**0.0**
Boiler Makeup	Gallons	3,785.2	8,931.6	3,236.3	12,031.3				**6,996.1**
PROCESS PLANT									
Previous Day "U" Value		689	685	692	680				**686.5**
Brine Conc, Product	Gallons	253,800	258,740	263,240	256,060				**257,960**
Brine Conc. Feed	Gallons	265,420	269,360	273,160	265,720				**268,415**
Percent Fidff (y-x)/y	%	4.4	3.9	3.6	3.6				**3.9**
FET Groundwater	Gallons	1,872,320	1,761,600	1,103,200	1,102,260				**1,459,845**
Quicklime	Tons	1.230	1.296	0.840	0.960				**1.081**
Lime/FET Groundwater	Tons/Mill Gallons	0.657	0.736	0.761	0.871				**0.741**

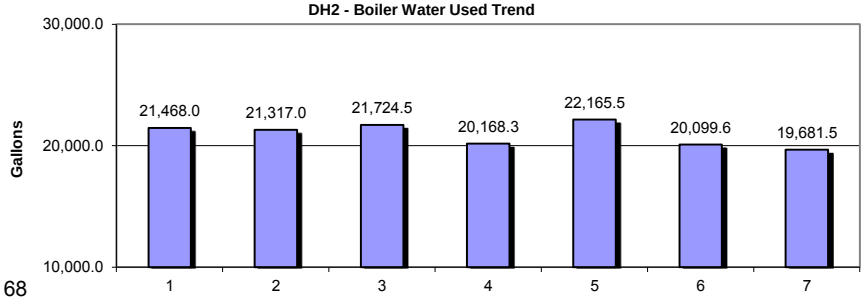




DEERHAVEN GENERATING UNITS ROLLING 7 DAY TREND ANALYSIS
08/24/2018 to 08/30/2018

DESCRIPTION		Friday 08/24/18	Saturday 08/25/18	Sunday 08/26/18	Monday 08/27/18	Tuesday 08/28/18	Wednesday 08/29/18	Thursday 08/30/18	7 Day Rolling Average
TOTAL DEERHAVEN PLANT									
Total Gross Generation	MWH	2,827.0	3,101.0	3,069.0	3,491.0	3,062.3	2,425.2	2,399.0	**2,910.6**
Total Auxiliaries	MWH	450.0	452.4	459.5	477.1	462.0	441.9	445.0	**455.4**
Total Net Generation	MWH	2,377.0	2,648.6	2,609.5	3,013.9	2,600.3	1,983.3	1,954.0	**2,455.2**
Percent Auxiliary	%	15.9	14.6	15.0	13.7	15.1	18.2	18.5	**15.9**
Average Gross Load	MWH	117.8	129.2	127.9	145.5	127.6	101.0	100.0	**121.3**
DEERHAVEN UNIT 2									
Gross Generation	MWH	2,189.0	2,502.0	2,451.0	2,787.0	2,379.0	1,800.0	1,783.0	**2,270.1**
Net Generation	MWH	1,807.6	2,114.4	2,059.3	2,382.7	1,986.5	1,431.8	1,407.9	**1,884.3**
NET/Gross	%	82.6	84.5	84.0	85.5	83.5	79.5	79.0	**82.7**
Average Gross Load	MWH	91.2	104.3	102.1	116.1	99.1	75.0	74.3	**94.6**
Net Heat Rate	BTU/KWH	12,821.4	12,810.1	12,262.2	12,419.5	12,747.0	14,205.7	14,363.2	**13,089.9**
Natural Gas Burned	Cubic Feet	7,361,328	7,046,143	6,862,549	7,765,625	7,486,817	7,795,166	8,461,182	**7,539,830**
Coal Burned	Tons	631.2	801.2	735.0	872.6	712.3	499.4	467.5	**674.2**
Coal on Hand	Tons	147,663.2	146,862.0	146,127.0	145,254.4	144,542.1	144,042.7	143,575.3	**145,438.1**
Coal Reserve (1800 tons/day)	Days	82.0	81.6	81.2	80.7	80.3	80.0	79.8	**80.8**
Boiler Makeup	Gallons	21,468.0	21,317.0	22,649.0	20,882.0	24,314.0	31,397.0	20,532.0	**23,222.7**
Boiler Blowdown	Gallons	0.0	0.0	924.5	713.7	2,148.5	11,297.4	850.5	**2,276.4**
Boiler Water Used	Gallons	21,468.0	21,317.0	21,724.5	20,168.3	22,165.5	20,099.6	19,681.5	**20,946.3**
Daily NOx Average	lbs/MMBTU	0.245	0.263	0.270	0.290	0.257	0.240	0.243	**0.258**
Year to Date NOx Average	lbs/MMBTU	0.338	0.338	0.338	0.338	0.338	0.338	0.338	**0.338**
DEERHAVEN UNIT 1									
Gross Generation	MWH	638.0	599.0	618.0	704.0	641.0	619.0	616.0	**633.6**
Net Generation	MWH	569.9	534.5	550.5	632.2	572.3	546.1	544.2	**564.2**
NET/Gross	%	89.3	89.2	89.1	89.8	89.3	88.2	88.3	**89.0**
Average Gross Load	MWH	26.6	25.0	25.8	29.3	26.7	25.8	25.7	**26.4**
Net Heat Rate	BTU/KWH	14,491.3	14,404.3	14,195.5	13,971.1	14,135.8	14,658.7	14,184.5	**14,291.6**
Natural Gas Burned	Cubic Feet	8,156,250	7,605,469	7,718,750	8,725,586	7,995,117	7,901,367	7,680,664	**7,969,029**
#6 Oil on Hand	BBL	24,160.1	24,160.1	24,160.1	24,113.9	24,146.1	24,113.9	24,113.9	**24,138.3**
#6 Oil Burned	BBL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
#6 Oil to Storage	BBL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	**0.0**
Boiler Makeup	Gallons	9,285.2	2,627.0	19.5	3,785.2	8,931.6	3,236.3	12,031.3	**5,702.3**
PROCESS PLANT									
Previous Day "U" Value		703	714	695	689	685	692	680	**694.0**
Brine Conc, Product	Gallons	238,220	248,960	247,320	253,800	258,740	263,240	256,060	**252,334.3**
Brine Conc. Feed	Gallons	249,120	259,840	259,060	265,420	269,360	273,160	265,720	**263,097.1**
Percent Fidff (y-x)/y	%	4.4	4.2	4.5	4.4	3.9	3.6	3.6	**4.1**
FET Groundwater	Gallons	1,415,200	1,476,640	1,278,400	1,872,320	1,761,600	1,103,200	1,102,260	**1,429,946**
Quicklime	Tons	0.84	1.08	0.78	1.23	1.30	0.84	0.96	**1.004**
Lime/FET Groundwater	Tons/Mill Gallons	0.594	0.731	0.610	0.657	0.736	0.761	0.871	**0.709**





TagName	Cell	CurrentValue
PRS:DH_Aux_Gen_submit	Total_AuxGen	445.0
PRS:DH_Gross_Gen_submit	Total_GrossGen	2,399.0
PRS:DH_Net_Gen_submit	Total_NetGen	1,954.0
PRS:DHGT-1_Gross_GEN_on_#2_Fuel_Oil_submit	GrossGen_GT1_No2	0.0
PRS:DHGT-1_Gross_GEN_on_Natural_Gas_submit	GrossGen_GT1_Gas	0.0
PRS:DHGT-1_Net_GEN_on_#2_Fuel_Oil_submit	NetGen_GT1_No2	0.0
PRS:DHGT-1_Net_GEN_on_Natural_Gas_submit	NetGen_GT1_Gas	-0.8
PRS:DHGT-2_Gross_GEN_on_#2_Fuel_Oil_submit	GrossGen_GT2_No2	0.0
PRS:DHGT-2_Gross_GEN_on_Natural_Gas_submit	GrossGen_GT2_Gas	0.0
PRS:DHGT-2_Net_GEN_on_#2_Fuel_Oil_submit	NetGen_GT2_No2	0.0
PRS:DHGT-2_Net_GEN_on_Natural_Gas_submit	NetGen_GT2_Gas	-0.3
PRS:DHGT-3_Gross_GEN_on_#2_Fuel_Oil_submit	GrossGen_GT3_No2	0.0
PRS:DHGT-3_Gross_GEN_on_Natural_Gas_submit	GrossGen_GT3_Gas	0.0
PRS:DHGT-3_Net_GEN_on_#2_Fuel_Oil_submit	NetGen_GT3_No2	0.0
PRS:DHGT-3_Net_GEN_on_Natural_Gas_submit	NetGen_GT3_Gas	-3.0
PRS:DHST-1_Gross_GEN_on_#2_Fuel_Oil_submit	GrossGen_Unit1_No2	0.0
PRS:DHST-1_Gross_GEN_on_#6_Fuel_Oil_submit	GrossGen_Unit1_No6	0.0
PRS:DHST-1_Gross_GEN_on_Natural_Gas_submit	GrossGen_Unit1_Gas	616.0
PRS:DHST-1_Net_GEN_on_#2_Fuel_Oil_submit	NetGen_Unit1_No2	0.0
PRS:DHST-1_Net_GEN_on_#6_Fuel_Oil_submit	NetGen_Unit1_No6	0.0
PRS:DHST-1_Net_GEN_on_Natural_Gas_submit	NetGen_Unit1_Gas	550.2
PRS:DHST-2_Gross_GEN_on_Coal_submit	GrossGen_Unit2_Coal	1,025.0
PRS:DHST-2_Gross_GEN_on_Natural_Gas_submit	GrossGen_Unit2_Gas	758.0
PRS:DHST-2_Net_GEN_on_Coal_submit	NetGen_Unit2_Coal	809.4
PRS:DHST-2_Net_GEN_on_Natural_Gas_submit	NetGen_Unit2_Gas	598.6
PRS:DHGT-1_Gross_BTU_per_KWH_on_NaturalGas_submit	GrossHr_Gt1_Gas	0.0
PRS:DHGT-1_Gross_BTU_per_KWH_on_No2_submit	GrossHr_Gt1_No2	0.0
PRS:DHGT-1_Net_BTU_per_KWH_on_NaturalGas_submit	NetHr_Gt1_Gas	0.0
PRS:DHGT-1_Net_BTU_per_KWH_on_No2_submit	NetHr_Gt1_No2	0.0
PRS:DHGT-2_Gross_BTU_per_KWH_on_NaturalGas_submit	GrossHr_Gt2_Gas	0.0
PRS:DHGT-2_Gross_BTU_per_KWH_on_No2_submit	GrossHr_Gt2_No2	0.0
PRS:DHGT-2_Net_BTU_per_KWH_on_NaturalGas_submit	NetHr_Gt2_Gas	0.0
PRS:DHGT-2_Net_BTU_per_KWH_on_No2_submit	NetHr_Gt2_No2	0.0
PRS:DHGT-3_Gross_BTU_per_KWH_on_NaturalGas_submit	GrossHr_Gt3_Gas	0.0
PRS:DHGT-3_Gross_BTU_per_KWH_on_No2_submit	GrossHr_Gt3_No2	0.0
PRS:DHGT-3_Net_BTU_per_KWH_on_NaturalGas_submit	NetHr_Gt3_Gas	0.0
PRS:DHGT-3_Net_BTU_per_KWH_on_No2_submit	NetHr_Gt3_No2	0.0
PRS:DHST-1_Gross_BTU_per_KWH_on_NaturalGas_submit	GrossHr_Unit1_Gas	12,669.4
PRS:DHST-1_Gross_BTU_per_KWH_on_No2_submit	GrossHr_Unit1_No2	0.0
PRS:DHST-1_Gross_BTU_per_KWH_on_No6_submit	GrossHr_Unit1_No6	0.0
PRS:DHST-1_Net_BTU_per_KWH_on_NaturalGas_submit	NetHr_Unit1_Gas	14,184.5
PRS:DHST-1_Net_BTU_per_KWH_on_No2_submit	NetHr_Unit1_No2	0.0
PRS:DHST-1_Net_BTU_per_KWH_on_No6_submit	NetHr_Unit1_No6	0.0
PRS:DHST-2_Gross_BTU_per_KWH_on_Coal_submit	GrossHr_Unit2_Coal	11,342.0
PRS:DHST-2_Gross_BTU_per_KWH_on_NaturalGas_submit	GrossHr_Unit2_Gas	11,341.9
PRS:DHST-2_Net_BTU_per_KWH_on_Coal_submit	NetHr_Unit2_Coal	14,363.2
PRS:DHST-2_Net_BTU_per_KWH_on_NaturalGas_submit	NetHr_Unit2_Gas	14,363.2
PRS:DH_Coal_On_Hand_submit	NewCoalOnHand	143,575.28
PRS:DH_Diesel_Tank_Fuel_in_Storage_submit	Fuel_In_Storage_No2	250,111
PRS:DH_Urea_Storage_submit	UreaUsed	0
PRS:DH_Pebble_Lime_Day_Bin_Output_submit	DayBins_Used	0

PRS:DH_Hydrated_Lime_Used_submit	HydratedLimeUsed	26,741
PRS:DH_Total_Lime_Submit	TotalLimeUsed	106.96

PiResults

Value written	1
Value written	2
Value written	3
Value written	4
Value written	5
Value written	6
Value written	7
Value written	8
Value written	9
Value written	10
Value written	11
Value written	12
Value written	13
Value written	14
Value written	15
Value written	16
Value written	17
Value written	18
Value written	19
Value written	20
Value written	21
Value written	22
Value written	23
Value written	24
Value written	25
Value written	26
Value written	27
Value written	28
Value written	29
Value written	30
Value written	31
Value written	32
Value written	33
Value written	34
Value written	35
Value written	36
Value written	37
Value written	38
Value written	39
Value written	40
Value written	41
Value written	42
Value written	43
Value written	44
Value written	45
Value written	46
Value written	47
Value written	48
Value written	49
Value written	50
Value written	51

Value written	52
Value written	53

DEERHAVEN MONTHLY REPORT FOR JULY 2018

GENERATION METER	READING	MWH OUTPUT
Generators		
GEN #1	245,702.0	
BOM	225,639.0	20,063.0
GEN#2	722,807.0	
BOM	651,193.0	71,614.0
GT #1	3,881.0	
BOM	3,809.9	71.1
GT#2	4,004.0	
BOM	3,999.9	4.1
GT#3	34,659.3	
BOM	34,659.3	0.0
TOTAL GROSS:		**91,752.2**
PUMP HOUSE (See notes)	9,275.0	
BOM	9,114.0	64.4
Auxiliaries		
GEN #1 RUN	72,044.0	
BOM	69,962.2	2,082.4
GEN #1 START	68,833.0	
BOM	68,729.8	102.5
GEN #1 BLACK START	0.0	
BOM	0.0	0.0
GEN #2 RUN A	88,551.0	
BOM	88,551.0	0.0
GEN #2 RUN B	26,736.0	
BOM	21,654.3	5,082.1
GEN #2 START	13,001.0	
BOM	7,308.2	5,693.8
GEN #2 AUX. RETRO T-73	87,245.2	
BOM	86,182.4	1,063.2
GEN #2 AUX. RETRO T-74	22,726.5	
BOM	21,753.9	0.0
GT #1	1,288.8	
BOM	1,268.4	20.5
GT #2	1,974,584.0	
BOM	1,952,857.0	21.7
GT #3	2,933.0	
BOM	2,931.0	1.1
TOTAL AUXILIARIES:		**14,067.3**
NET GENERATION:		**77,684.9**

UNITS IN SERVICE

UNIT	BOM	EOM	HOURS
GEN #1	49,314.0	50,057.7	743.7
GEN #2	15,341.0	16,064.0	728.0
GT #1	13,624.7	13,630.9	6.2
GT #2	13,600.9	13,602.3	1.4
GT #3	11,724.7	11,724.7	0.0

GENERATION ON No. 6 FUEL OIL

UNIT	GROSS GEN	NET GEN	BBLS@60	GROSS BTU/KWH	NET BTU/KWH
GEN #1	0.00	0.00	0.0	0.0	0.0

GENERATION ON No. 2 FUEL OIL

UNIT	GROSS GEN	NET GEN	GALS@60	GROSS BTU/KWH	NET BTU/KWH
GEN #1	0.00	0.00	0.0	0.0	0.0
GT #1	0.00	0.00	0.0	0.0	0.0
GT #2	4.10	3.60	1,283.6	43,234.9	49,239.7
GT #3	0.00	0.00	0.0	0.0	0.0

GENERATION ON NATURAL GAS

UNIT	GROSS GEN	NET GEN	CUBIC FEET	GROSS BTU/KWH	NET BTU/KWH
GEN #1	20,063.00	17,923.30	248,825,193	12,601.9	14,106.3
GEN #2	20,313.59	16,870.01	218,367,433	10,922.9	13,152.5
GT #1	71.10	50.60	1,237,688	17,688.0	24,854.1
GT #2	0.00	-21.20	0	0.0	0.0
GT #3	0.00	-1.10	0	0.0	0.0

GENERATION ON COAL

UNIT	GROSS GEN	NET GEN	TONS	GROSS BTU/KWH	NET BTU/KWH
GEN #2	51,300.41	42,859.70	22,320.68	10,820.7	12,951.7

FUEL HEAT CONTENTS USED		
	GAS BTU'S/FT³	1,016.1
	COAL BTU/LB	12,434.8
	#2 OIL BTU'S/GAL	138,102.6
	#6 OIL BTU'S/GAL	150,909.6

FUEL HEAT CONTENT

No. 2 Oil BTUs/Gal	138,102.6
No. 6 Oil BTUs/Gal	150,909.6
Gas BTUs/Cu Ft	1,016.1
Coal BTUs/LB	12,434.8

FUEL OIL IN STORAGE

No. 2 Oil Received	0.0
No. 6 Oil Received	0.0
No. 2 Oil in Storage	250,111.0
No. 6 Oil in Storage	24,113.9

COAL TONS IN STORAGE

On Hand BOM	130,036.8
Received	23,222.8
Burned	22,320.7
On Hand EOM	130,939.0

COAL FEEDERS (TONS)

E1	3,759.98
E2	3,606.49
C1	3,179.98
C2	3,156.76
W1	4,258.58
W2	4,358.89
TOTAL	22,320.68

RAINFALL (Inches) 11.910

BOM = Beginning of Month
EOM = End of Month

Notes

If DH2 is on, either 70%(DH1 on) or 100% (DH1 off) of PH is subtracted from DH1 AUX and allocated to DH2 AUX.

DEERHAVEN MONTHLY REPORT FOR JULY 2018

WATER USAGE

UNIT	METER	GALLONS
Boiler No.1 Makeup	21,354,322.3	
BOM	21,272,490.2	81,820.3
Boiler No. 2 Makeup	513,358.0	
BOM	647,314.0	866,044.0
Total		**947,864.3**
Boiler No. 1 Blowdown	4,001,786.1	
BOM	3,909,313.2	92,472.9
Boiler No. 2 Blowdown	61,342.2	
BOM	55,238.5	111,369.0
Total		**203,841.9**
CCW No.1 Makeup	84,341.0	
BOM	84,338.0	3.0
CCW No.2 Makeup	49,396.0	
BOM	34,000.0	15,396.0
Total		**15,399.0**
Cooling Tower 1 Makeup	554,738,438	
BOM	534,451,125	20,287,313
Cooling Tower 2 Makeup	30,196,644.0	
BOM	29,824,374.0	37,227,000.0
Auxiliary Tower Makeup		-3,977,112.5
BOM		
Total		**53,537,200.0**
Cooling Tower 1 Blowdown	44,463,703.1	
BOM	43,508,878.9	954,824.2
Cooling Tower 2 Blowdown	308,485.0	
BOM	305,736.0	2,749,000.0
Total		**3,703,824.2**
Deep Well	1,575,017.0	
BOM	1,528,851.0	46,166.0
TOTAL WATER PROCESSED:		**58,454,295.4**

PROCESS PLAN SUMMARY

Water Summary (Gal)	
Ash Pond Blowdown	8,871,390
Brine Conc Feed	8,389,860
Brine Conc Product	7,932,900
Demineralizer Feed	898,674
FET Groundwater	50,355,630
CTM Tank Feed	51,735,200
CTM Tank Effluent	53,537,200
Spray Dryer Feed	793
Filter Backwash Water	571,120
Cooling Tower #2 Makeup	37,227,000
Unit 1 Aux Tower Makeup	-3,977,113

Chemicals Used	
Quicklime (Tons)	30.09
Soda Ash (Tons)	8.98
Polymer-Betz 1100 (Lbs)	110.40
Polymer-Betz 1181 (Lbs)	1,688.60
Carbon Dioxide (Lbs)	10,018.56

Fuel Consumption	
Natural Gas (CuFt)	13,828

Power Consumption (KWH)	
Brine Concentrator	309,620
Brind Concentrator Comp	456,100
Spray Dryer	8,320
FET/PWT	108,500
Total KWH Used	**882,540**

AQCS CONSUMABLES	
UREA Delivered (gallons)	0
LIME Delivered (tons)	0.0
PLAS Lime USED (tons)	0.00
UREA USED (gallons)	548
PBL DayBins Output (tons)	0
HYDRATED LIME USED (gals)	400,134
TOTAL LIME USED (tons)	1,600.54

DEERHAVEN MONTHLY REPORT FOR JULY 2018
UNIT 2 COAL MILL SUMMARY

Day	TOTAL COAL	E1	E2	E TOTAL	C1	C2	C TOTAL	W1	W2	W TOTAL
1	772.17	44.65	1.60	46.25	124.19	124.58	248.77	228.54	248.61	477.15
2	1,118.00	139.47	88.32	227.79	242.64	242.98	485.62	200.91	203.68	404.59
3	1,013.93	230.33	230.22	460.55	230.10	230.28	460.38	46.14	46.86	93.00
4	808.99	153.12	165.26	318.38	154.97	155.23	310.20	89.07	91.34	180.41
5	849.10	0.00	0.00	0.00	152.70	153.44	306.14	270.00	272.96	542.96
6	691.61	86.95	236.49	323.44	0.32	0.29	0.61	182.50	185.06	367.56
7	696.32	265.28	264.81	530.09	0.00	0.00	0.00	82.58	83.65	166.23
8	218.45	119.91	98.54	218.45	0.00	0.00	0.00	0.00	0.00	0.00
9	616.70	128.74	121.56	250.30	0.00	0.00	0.00	171.60	194.80	366.40
10	829.42	285.61	257.27	542.88	0.00	0.00	0.00	142.37	144.17	286.54
11	842.19	156.07	156.03	312.10	0.00	0.00	0.00	274.14	255.95	530.09
12	778.91	278.29	228.66	506.95	0.00	0.00	0.00	135.31	136.65	271.96
13	870.69	290.27	290.15	580.42	144.97	145.30	290.27	0.00	0.00	0.00
14	757.76	269.99	269.87	539.86	107.48	110.42	217.90	0.00	0.00	0.00
15	682.33	281.78	260.83	542.61	69.88	69.84	139.72	0.00	0.00	0.00
16	678.93	269.70	210.82	480.52	96.21	102.20	198.41	0.00	0.00	0.00
17	546.92	275.66	271.26	546.92	0.00	0.00	0.00	0.00	0.00	0.00
18	673.86	238.80	228.76	467.56	0.00	0.00	0.00	100.64	105.66	206.30
19	589.93	17.30	17.13	34.43	0.00	0.00	0.00	276.06	279.44	555.50
20	689.78	89.40	89.27	178.67	0.00	0.00	0.00	253.87	257.24	511.11
21	917.33	138.66	119.64	258.30	99.35	99.13	198.48	216.31	244.24	460.55
22	736.41	0.00	0.00	0.00	139.36	139.57	278.93	227.08	230.40	457.48
23	573.65	0.00	0.00	0.00	55.52	56.43	111.95	229.15	232.55	461.70
24	733.33	0.00	0.00	0.00	108.39	124.98	233.37	248.46	251.50	499.96
25	797.53	0.00	0.00	0.00	131.84	117.24	249.08	272.53	275.92	548.45
26	626.14	0.00	0.00	0.00	78.76	69.79	148.55	237.24	240.35	477.59
27	819.30	0.00	0.00	0.00	257.37	257.33	514.70	151.42	153.18	304.60
28	792.20	0.00	0.00	0.00	263.46	252.57	516.03	137.40	138.77	276.17
29	646.61	0.00	0.00	0.00	262.66	253.06	515.72	65.28	65.61	130.89
30	520.82	0.00	0.00	0.00	244.25	236.29	480.54	19.98	20.30	40.28
31	431.37	0.00	0.00	0.00	215.56	215.81	431.37	0.00	0.00	0.00
TOTAL	**22,320.68**	**3,759.98**	**3,606.49**	**7,366.47**	**3,179.98**	**3,156.76**	**6,336.74**	**4,258.58**	**4,358.89**	**8,617.47**

DEERHAVEN GENERATING STATION
DEERHAVEN UNIT ONE STEAM GENERATION FOR JULY 2018

	DEERHAVEN UNIT 1														
	NATURAL GAS				#6 FUEL OIL				#2 FUEL OIL				AUXILIARIES		
Day	Gross	Net	MCF	Hours	Gross	Net	Barrels	Hours	Gross	Net	Gallons	Hours	Gas	Oil	Pump House
1	734.0	656.1	8,715.82	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.9	0.0	0.6
2	739.0	661.7	8,743.16	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	77.3	0.0	0.7
3	857.0	777.7	8,894.53	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	79.3	0.0	0.7
4	546.0	471.0	7,917.97	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.0	0.0	0.6
5	678.0	601.4	8,175.78	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	76.6	0.0	0.6
6	633.0	565.0	7,910.16	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	68.0	0.0	0.8
7	641.0	574.4	7,909.18	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	66.6	0.0	0.6
8	785.0	711.1	9,258.79	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.9	0.0	0.5
9	650.0	574.2	7,970.70	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.8	0.0	0.6
10	655.0	584.4	8,007.81	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.6	0.0	0.7
11	701.0	626.6	8,416.99	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	74.4	0.0	0.7
12	630.0	559.6	7,972.66	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.4	0.0	0.7
13	716.0	642.7	8,780.27	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	73.3	0.0	0.6
14	678.0	605.9	8,396.48	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	72.1	0.0	0.6
15	619.0	550.0	7,824.22	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	69.0	0.0	0.6
16	605.0	540.4	7,905.27	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.6	0.0	0.6
17	618.0	550.4	7,909.18	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.6	0.0	0.6
18	616.0	550.4	7,660.16	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.6	0.0	0.6
19	608.0	542.7	7,849.61	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.3	0.0	0.7
20	615.0	547.9	7,824.22	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.1	0.0	0.5
21	603.0	540.4	7,578.13	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	62.6	0.0	0.6
22	621.0	557.5	7,099.61	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.5	0.0	0.5
23	584.0	519.3	7,211.91	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.7	0.0	0.6
24	618.0	553.0	7,428.71	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.0	0.0	0.6
25	617.0	553.1	7,892.58	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.9	0.0	0.6
26	603.0	539.3	7,874.02	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.7	0.0	0.7
27	649.0	581.4	8,087.89	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	67.6	0.0	0.6
28	623.0	557.3	7,882.81	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	65.7	0.0	0.7
29	607.0	542.8	7,907.23	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.2	0.0	0.6
30	609.0	544.5	7,909.18	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	64.5	0.0	0.6
31	605.0	541.1	7,910.16	24.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.9	0.0	0.5
TOTAL	**20,063.0**	**17,923.3**	**248,825.19**	**744.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**2,139.7**	**0.0**	**19.3**

DEERHAVEN GENERATING STATION
DEERHAVEN UNIT TWO STEAM GENERATION FOR JULY 2018

	DEERHAVEN UNIT 2											
	COAL				NATURAL GAS				AUXILIARIES			
Day	Gross	Net	Tons	Hours	Gross	Net	MCF	Hours	Coal	Gas	Pump House	SCR
1	1,899.1	1,613.4	772.17	24.0	796.9	677.0	7,930.18	0.0	285.7	119.9	1.4	--
2	2,825.3	2,479.4	1,118.00	24.0	831.7	729.8	8,054.93	0.0	346.0	101.8	1.7	--
3	2,508.7	2,163.5	1,013.93	24.0	593.3	511.6	5,868.90	0.0	345.3	81.6	1.7	--
4	1,910.9	1,610.1	808.99	24.0	612.0	515.7	6,341.80	0.0	300.8	96.3	1.4	--
5	2,304.9	1,994.6	849.10	24.0	718.1	621.5	6,475.10	0.0	310.3	96.7	1.4	--
6	1,285.2	1,033.2	691.61	24.0	573.8	461.3	7,557.62	0.0	252.0	112.5	2.0	--
7	1,535.6	1,271.2	696.32	24.0	635.4	526.0	7,052.49	0.0	264.4	109.4	1.4	--
8	422.2	261.5	218.45	10.8	300.8	186.3	3,808.84	0.0	160.7	114.5	1.1	--
9	1,386.0	1,155.1	616.70	23.0	744.0	620.0	8,102.05	0.0	230.9	124.0	1.4	--
10	1,958.7	1,661.5	829.42	24.0	668.3	566.9	6,927.00	0.0	297.2	101.4	1.7	--
11	2,028.5	1,737.4	842.19	24.0	812.5	695.9	8,256.59	0.0	291.1	116.6	1.7	--
12	1,832.2	1,552.4	778.91	24.0	742.8	629.3	7,728.27	0.0	279.9	113.5	1.7	--
13	1,768.9	1,486.4	870.69	24.0	696.1	584.9	8,385.50	0.0	282.6	111.2	1.4	--
14	1,608.4	1,330.2	757.76	24.0	585.6	484.3	6,751.95	0.0	278.2	101.3	1.4	--
15	1,554.8	1,264.1	682.33	24.0	607.2	493.6	6,521.24	0.0	290.7	113.5	1.4	--
16	1,506.0	1,257.1	678.93	24.0	668.0	557.6	7,371.09	0.0	248.9	110.4	1.4	--
17	1,137.4	893.1	546.92	24.0	587.6	461.4	6,915.04	0.0	244.3	126.2	1.4	--
18	1,488.9	1,221.7	673.86	24.0	624.1	512.1	6,909.18	0.0	267.2	112.0	1.4	--
19	1,262.8	1,007.7	589.93	24.0	553.2	441.4	6,324.46	0.0	255.2	111.8	1.7	--
20	1,521.7	1,235.5	689.78	24.0	515.3	418.4	5,717.53	0.0	286.2	96.9	1.1	--
21	2,160.5	1,846.8	917.33	24.0	582.5	497.9	6,053.22	0.0	313.7	84.6	1.4	--
22	1,645.2	1,353.5	736.41	24.0	561.8	462.2	6,155.03	0.0	291.7	99.6	1.1	--
23	1,224.4	994.4	573.65	24.0	697.6	566.5	7,999.02	0.0	230.1	131.1	1.4	--
24	1,636.9	1,496.6	733.33	24.0	645.1	589.9	7,074.22	0.0	140.2	55.3	1.4	--
25	1,922.5	1,495.2	797.53	24.0	712.5	554.1	7,233.89	0.0	427.4	158.4	1.4	--
26	1,422.5	1,168.7	626.14	24.0	666.5	547.6	7,180.18	0.0	253.8	118.9	1.7	--
27	2,000.8	1,720.6	819.30	24.0	845.2	726.8	8,470.22	0.0	280.2	118.4	1.4	--
28	1,931.4	1,647.8	792.20	24.0	744.6	635.2	7,474.61	0.0	283.7	109.3	1.7	--
29	1,517.4	1,258.9	646.61	24.0	638.5	529.8	6,659.67	0.0	258.5	108.8	1.4	--
30	1,144.1	904.2	520.82	24.0	623.0	492.3	6,941.16	0.0	239.9	130.6	1.4	--
31	948.2	744.0	431.37	24.0	729.8	572.7	8,126.47	0.0	204.2	157.1	1.1	--
TOTAL	**51,300.4**	**42,859.7**	**22,320.68**	**729.8**	**20,313.6**	**16,870.0**	**218,367.4**	**0.0**	**8,440.7**	**3,443.6**	**45.1**	**--**

DEERHAVEN GENERATING STATION
GAS TURBINE GENERATION FOR JULY 2018

	GT-1								GT-2								GT-3							
	NATURAL GAS				FUEL OIL				NATURAL GAS				FUEL OIL				NATURAL GAS				FUEL OIL			
Day	Gross	Net	MCF	Hours	Gross	Net	Gallons	Hours	Gross	Net	MCF	Hours	Gross	Net	Gallons	Hours	Gross	Net	MCF	Hours	Gross	Net	Gallons	Hours
1	18.1	17.0	433	2.9	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
2	0.0	-0.8	0	0.0	0.0	0.0	0	0.0	0.0	-0.8	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
3	0.0	-0.4	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
4	0.0	-1.1	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
5	0.0	-1.0	0	0.0	0.0	0.0	0	0.0	0.0	-2.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
6	0.0	-0.4	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
7	0.0	-1.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.3	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
8	53.0	52.0	805	3.1	0.0	0.0	0	0.0	0.0	0.0	0	0.0	4.1	3.6	1284	3.3	0.0	0.0	0	0.0	0.0	0.0	0	0.0
9	0.0	-0.3	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
10	0.0	-1.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
11	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
12	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	-1.4	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
13	0.0	-2.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
14	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
15	0.0	-1.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
16	0.0	-1.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
17	0.0	-1.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.9	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
18	0.0	-0.3	0	0.0	0.0	0.0	0	0.0	0.0	-0.5	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
19	0.0	-0.9	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
20	0.0	-0.6	0	0.0	0.0	0.0	0	0.0	0.0	-1.4	0	0.0	0.0	0.0	0	0.0	0.0	-0.6	0	0.0	0.0	0.0	0	0.0
21	0.0	-0.2	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	-0.5	0	0.0	0.0	0.0	0	0.0
22	0.0	-0.9	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
23	0.0	-0.6	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
24	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	-0.6	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
25	0.0	-0.9	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
26	0.0	-0.5	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
27	0.0	-0.2	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
28	0.0	-0.9	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
29	0.0	-0.5	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
30	0.0	-0.1	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
31	0.0	-0.8	0	0.0	0.0	0.0	0	0.0	0.0	-0.7	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0	0.0	0.0	0	0.0
TOTAL	**71.1**	**50.6**	**1,237.7**	**6.0**	**0.0**	**0.0**	**0**	**0.0**	**0.0**	**-21.2**	**0.0**	**0.0**	**4.1**	**3.6**	**1284**	**3.3**	**0.0**	**-1.1**	**0.0**	**0.0**	**0.0**	**0.0**	**0**	**0.0**

DEERHAVEN MONTHLY REPORT FOR JULY 2018

NATURAL GAS REPORT

	DH1	DH2	GT1	GT2	GT3	PP	TOTAL		
Day	MCF	MCF	MCF	MCF	MCF	MCF	MCF	FGT	diff
1	8,715.82	7,930.18	432.81	0.00	0.00	0.00	17,078.80		17,078.80
2	8,743.16	8,054.93	0.00	0.00	0.00	0.00	16,798.10		16,798.10
3	8,894.53	5,868.90	0.00	0.00	0.00	0.00	14,763.43		14,763.43
4	7,917.97	6,341.80	0.00	0.00	0.00	0.00	14,259.77		14,259.77
5	8,175.78	6,475.10	0.00	0.00	0.00	0.00	14,650.88		14,650.88
6	7,910.16	7,557.62	0.00	0.00	0.00	0.00	15,467.77		15,467.77
7	7,909.18	7,052.49	0.00	0.00	0.00	0.00	14,961.67		14,961.67
8	9,258.79	3,808.84	804.88	0.00	0.00	0.00	13,872.51		13,872.51
9	7,970.70	8,102.05	0.00	0.00	0.00	0.00	16,072.75		16,072.75
10	8,007.81	6,927.00	0.00	0.00	0.00	0.00	14,934.81		14,934.81
11	8,416.99	8,256.59	0.00	0.00	0.00	0.00	16,673.58		16,673.58
12	7,972.66	7,728.27	0.00	0.00	0.00	0.00	15,700.93		15,700.93
13	8,780.27	8,385.50	0.00	0.00	0.00	0.00	17,165.77		17,165.77
14	8,396.48	6,751.95	0.00	0.00	0.00	0.00	15,148.44		15,148.44
15	7,824.22	6,521.24	0.00	0.00	0.00	0.00	14,345.46		14,345.46
16	7,905.27	7,371.09	0.00	0.00	0.00	0.00	15,276.37		15,276.37
17	7,909.18	6,915.04	0.00	0.00	0.00	0.00	14,824.22		14,824.22
18	7,660.16	6,909.18	0.00	0.00	0.00	0.00	14,569.34		14,569.34
19	7,849.61	6,324.46	0.00	0.00	0.00	0.00	14,174.07		14,174.07
20	7,824.22	5,717.53	0.00	0.00	0.00	0.00	13,541.75		13,541.75
21	7,578.13	6,053.22	0.00	0.00	0.00	0.00	13,631.35		13,631.35
22	7,099.61	6,155.03	0.00	0.00	0.00	0.00	13,254.64		13,254.64
23	7,211.91	7,999.02	0.00	0.00	0.00	0.00	15,210.94		15,210.94
24	7,428.71	7,074.22	0.00	0.00	0.00	0.00	14,502.93		14,502.93
25	7,892.58	7,233.89	0.00	0.00	0.00	0.00	15,126.46		15,126.46
26	7,874.02	7,180.18	0.00	0.00	0.00	0.00	15,054.20		15,054.20
27	8,087.89	8,470.22	0.00	0.00	0.00	0.00	16,558.11		16,558.11
28	7,882.81	7,474.61	0.00	0.00	0.00	0.00	15,357.42		15,357.42
29	7,907.23	6,659.67	0.00	0.00	0.00	0.00	14,566.89		14,566.89
30	7,909.18	6,941.16	0.00	0.00	0.00	0.00	14,850.34		14,850.34
31	7,910.16	8,126.47	0.00	0.00	0.00	13.83	16,050.45		16,050.45
TOTAL	**248,825.19**	**218,367.43**	**1,237.69**	**0.00**	**0.00**	**13.83**	**468,444.14**	**0.0**	**468,444.14**

DEERHAVEN MONTHLY WATER REPORT FOR JULY 2018

START DATE	**7/1/2018**	6/30/2018
END DATE	7/31/2018	8/1/2018
Number of Months	**1**	

WATER USAGE

UNIT	METER	GALLONS
Boiler No.1 Makeup	21,354,322.3	
BOM	21,272,490.2	81,820.3
Boiler No. 2 Makeup	513,358.0	
BOM	647,314.0	866,044.0
Total		**947,864.3**
Boiler No. 1 Blowdown	4,001,786.1	
BOM	3,909,313.2	92,472.9
Boiler No. 2 Blowdown	61,342.2	
BOM	55,238.5	111,369.0
Total		**203,841.9**
CCW No.1 Makeup	84,341.0	
BOM	84,338.7	3.0
CCW No.2 Makeup	49,396.0	
BOM	34,000.0	15,396.0
Total		**15,399.0**
Cooling Tower 1 Makeup	554,738,438	
BOM	534,451,125	20,287,313
Cooling Tower 2 Makeup	30,196,644.0	
BOM	29,838,116.0	37,227,000.0
Auxiliary Tower Makeup		-3,977,112.5
BOM		
Total		**53,537,200.0**
Cooling Tower 1 Blowdown	44,463,703.1	
BOM	43,508,878.9	954,824.2
Cooling Tower 2 Blowdown	308,485.0	
BOM	305,825.0	2,749,000.0
Total		**3,703,824.2**
Elevated Tank	No events found.	
BOM	No events found.	es For Calculation
TOTAL WATER PROCESSED:		**#VALUE!**

PROCESS PLAN SUMMARY

Water Summary (Gal)	
Ash Pond Blowdown	8,871,390
Brine Conc Feed	8,389,860
Brine Conc Product	7,932,900
Demineralizer Feed	898,674
FET Groundwater	50,355,630
CTM Tank Feed	51,735,200
CTM Tank Effluent	53,537,200
Spray Dryer Feed	793
Filter Backwash Water	571,120
Cooling Tower #2 Makeup	37,227,000
Unit 1 Aux Tower Makeup	-3,977,113

Chemicals Used	
Quicklime (Tons)	30.09
Soda Ash (Tons)	8.98
Polymer-Betz 1100 (Lbs)	110.40
Polymer-Betz 1181 (Lbs)	1,688.60
Carbon Dioxide (Lbs)	10,018.56

Fuel Consumption	
Natural Gas (CuFt)	13,828

Power Consumption (KWH)	
Brine Concentrator	309,620
Brind Concentrator Comp	456,100
Spray Dryer	8,320
FET/PWT	108,500
Total KWH Used	**882,540**

AQCS CONSUMABLES	
UREA Delivered (gallons)	0
LIME Delivered (tons)	0.0
PLAS Lime USED (tons)	0.00
UREA USED (gallons)	548
PBL DayBins Output (tons)	0
HYDRATED LIME USED (gals)	400,134
TOTAL LIME USED (tons)	1,600.54

Step 1: You can review or print the daily report instructions from the link below

Daily Report Instructions

Step 2: Choose the report date

The report should automatically choose the correct date but you can choose another.

Report Date 3/1/2017

Step 3: Enter fuel deliveries

Step 4: Review Readings and Submit them to PI

The Review Readings sheet has step by step instructions along the top

Step 5: Review the Report, Submit to PI, and then Print

Kelly Fuel Oil Delivery

Entry Date
3/1/2017

Valid	Delivery Time	Fuel Type	Gallons	Truck Number	Ticket Number
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					
FALSE					

Total #2 Fuel Delivered **0 gallons**

Total #6 Fuel Delivered **0 gallons**

Report Date **3/1/2017**

Meter	Last Reading	Current Reading	MWH Output	Submit
GENERATION				
STEAM GEN. NO. 7	7,234	7,234	0	0
STEAM GEN. NO. 8	80,606.3	81,431.9	825.6	825.6
COMBUSTION TRB #1	29,967	29,967	0	0
COMBUSTION TRB #2	28,164	28,164	0	0
COMBUSTION TRB #3	24,291	24,291	0	0
COMBUSTION TRB #4	117,655	119,253	1,598	1,598
AUXILLIARIES				
	Last Reading		MWH	Submit
#4 AUX	413	413	0	0
#7 AUX	1,898	1,898	0.0	0.0
#7 STANDBY	2,780	2,782	2.0	2.0
#8 480V AUX	578,530	592,448	13.9	13.9
#8 AUX	24,569.2	24,596.4	27.2	27.2
#8 STANDBY	3,581.9	3,581.9	0.0	0.0
GT #1 AUX.	1,968	1,968	0.0	0.0
GT #2 AUX.	1,743	1,743	0.0	0.0
GT #3 AUX.	4,704	4,704	0.0	0.0
GT #4 AUX.	53,233	53,302	6.9	6.9
GT #4 EMG FEED	12,639	12,639	0.0	0.0
GT #4 ALT 480 V	31	31	0.0	0.0
GENERATOR HOURS				
	Last Reading		Hours	Submit
STEAM GEN. NO. 7	73,724.1	73,724.1	0.0	0.0
STEAM GEN. NO. 8	59,263.8	59,290.4	24.0	24.0
COMBUSTION TRB #1	153.4	153.4	0.0	0.0
COMBUSTION TRB #2	108.7	108.7	0.0	0.0
COMBUSTION TRB #3	71.9	71.9	0.0	0.0
COMBUSTION TRB #4	45,253.9	45,280.6	24.0	24.0
#6 OIL CONSUMED				
	Last Reading		BBLS Used	Submit
GEN #7	5,520,136	5,520,136	0.0	0.0
GAS CONSUMED				
	Last Reading		scf Used	Submit
GEN #7	8,321,350	8,321,350	0	0
GT #1	7,515,718	7,515,718	0	0
GT #2	24,313,624	24,313,624	0	0
GT #3	47,265,876	47,265,876	0	0
GT #4	29,845,424	29,863,014	17,590,000	17,590,000
#2 OIL CONSUMED				
	Last Reading		Gallons Used	Submit
GT #1	79,834	79,834	0.0	0.0
GT #2	2,452	2,452.0	0.0	0.0
GT #3	50,550	50,550.0	0.0	0.0
GT #4	1,257,677	1,257,677.0	0.0	0.0
WATER USAGE				
	Last Reading		Gallons Used	Submit
City Water #6	4,000	4,000.0	0.0	0.0
City Water #7	5,654	5,654.0	0.0	0.0
City Water #8	38,130	38,186.0	56,000.0	56,000.0
City Water RO	25,556	25,591.0	35,000.0	35,000.0
City Water CT4	115,682	115,806.0	12,400.0	12,400.0
KE-7 CLNG TWR BD	58,716,216	58,716,216.0	0.0	0.0
KE-8 CLNG TWR BD (big)	73,201,792	73,513,216.0	311,424.0	311,420.0
KE-7 BOILER MU	270,877	270,877.0	0.0	0.0
KE-8 BOILER MU CC1(HRSG)	9,454,696	9,462,934.0	8,238.0	8,238.0
CT4 CLNG TWR BD	1,361,027	1,362,353.0	1,326.0	1,326.0
#1 WELL WATER	31,615	31,615.0	0.0	0.0
#3 WELL WATER	1,538,210,304	1,539,105,408.0	895,104.0	895,104.0
CT4 WELL WATER	0	0.0	0.0	0.0
RW #1	162,791	164,607.0	454.0	454.0
RW #2	282,453	282,515.0	15.5	15.5
Gas Yard				
	Last Reading		mscf Used	Submit
Gainesville Gas GRU Reading	3,764	3,764	0.0	0.0
Gas Yard Reading	180,401	180,401	0.0	0.0
Oil in Storage				Submit
	Last Reading from Report	Today Tank Level (ft)	Today Reading from DCS	
North Bulk Tank (#6) bbls	0.0	#VALUE!	0.0	0.0
South Bulk Tank (#6) bbls	0.0	#VALUE!	0.0	0.0
Diesel Tank No 1 (#2) gallons	5,693.0	1.6	5,751.0	5,693.0
Diesel Tank No 2 (#2) gallons	5,751.0	1.6	5,827.0	5,751.0
Diesel Tank No 3 (#2) gallons	157,161.0	21.9	157,161.0	157,161.0

Report Date	**3/1/2017**			
Diesel Tank No 4 (#2) gallons	269,512.0	20.1	270,992.4	269,512.0
North Bulk Tank Temp	Tank Diameter	35.0		0.0
South Bulk Tank Temp	**Tank Level(Inches)**	**Feet (decimal)**		0.0
Diesel Tank No 1 Temp	**#VALUE!**	**#NAME?**		0.0
Diesel Tank No 2 Temp	**#VALUE!**	**#NAME?**		0.0
Diesel Tank No 3 Temp				0.0
Diesel Tank No 4 Temp				0.0
			Fuel Deliveries (Enter 0 , for no deliveries)	
No2 Oil Delivered (gals)			0	0
No6 Oil Delivered (bbls)			0	0
			Unit Online/Offline Time (ex. 13:34)	
			Unit 7 **On**line Time	
			Unit 7 **Off**line Time	
			Unit 8 **On**line Time	ON-LINE
			Unit 8 **Off**line Time	ON-LINE
			GT 1 **On**line Time	
			GT 1 **Off**line Time	
			GT 2 **On**line Time	
			GT 2 **Off**line Time	
			GT 3 **On**line Time	
			GT 3 **Off**line Time	
			GT 4 **On**line Time	ON-LINE
			GT 4 **Off**line Time	ON-LINE
			Hours on Fuel (Enter 0 if unit did not run)	
			#7 Hours on Gas	0.0
			#7 Hours on Oil	0.0
			GT 1 Hours on Gas	0.0
			GT1 Hours on Oil	0.0
			GT 2 Hours on Gas	0.0
			GT 2 Hours on Oil	0.0
			GT 3 Hours on Gas	0.0
			GT 3 Hours on Oil	0.0
			GT 4 Hours on Gas	24.0
			GT 4 Hours on Oil	0.0
			Weather	
Barometric Pressure	3/1/17 8:00 AM			30.06
Temperature	3/1/17 8:00 AM			66
Conditions	3/1/17 8:00 AM			Partly Cloudy
Rainfall	3/1/17 8:00 AM			0
Barometric Pressure	3/1/17 4:00 PM			29.93
Temperature	3/1/17 4:00 PM			86
Conditions	3/1/17 4:00 PM			Partly Cloudy
Rainfall	3/1/17 4:00 PM			0
Barometric Pressure	3/2/17 12:00 AM			29.94
Temperature	3/2/17 12:00 AM			68
Conditions	3/2/17 12:00 AM			Clear
Rainfall	3/2/17 12:00 AM			0
			Misc	
			Input Operator	STULL
			Supervisor	KNAPP

Comment: HRA 2' 9"

***** Please enter Deliveries on Fuel Delivery page then send to PI once (1 time only). *****

Fuel Deliveries

Delivery Time	Fuel Type	Gallons	Truck Number	Ticket Number
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			
No more values:	No more values:			

Total #2 Fuel Oil **0 gallons**

Total #6 Fuel Oil **0 gallons**

DAILY REPORT

KELLY GENERATING STATION
GAINESVILLE, FLORIDA

DATE OF THIS REPORT: 3/1/2017
SHIFT SUPERVISOR: KNAPP
PREPARED BY: STULL

Generation

Generator	Reading	MWH
STEAM #7	7,234	
Previous	7,234	0.0
STEAM #8	81,432	
Previous	80,606	825.6
GT #1	29,967	
Previous	29,967	0.0
GT #2	28,164	
Previous	28,164	0.0
GT #3	24,291	
Previous	24,291	0.0
GT #4	119,253	
Previous	117,655	1,598.0
CC-1 Generator Subtotal		2,423.6
Total Gross:		2,423.6

Auxiliary	Reading	MWH
#4 Diesel	413	
Previous	413	0.0
#7 AUX	1,898	
Previous	1,898	0.0
#7 Standby	2,782	
Previous	2,780	2.0
#8 480V Aux	592,448	
Previous	578,530	13.9
#8 Aux	24,596	
Previous	24,569	27.2
#8 Standby	3,582	
Previous	3,582	0.0
GT #1 Aux	1,968	
Previous	1,968	0.0
GT #2 Aux	1,743	
Previous	1,743	0.0
GT #3 Aux	4,704	
Previous	4,704	0.0
GT #4 Aux	53,302	
Previous	53,233	6.9
GT #4 Emg Feed	12,639	
Previous	12,639	0.0
GT #4 ALT 480V	31	
Previous	31	0.0
CC-1 Aux Subtotal		48.0
Total Auxiliaries:		50.0
Net Generation:		2,373.6

Units In Service

Unit	In	Out	Yesterday	Today	Hours
GEN #7			73,724.1	73,724.1	0.0
GEN #8	ON-LINE	ON-LINE	59,263.8	59,290.4	24.0
GT #1			153.4	153.4	0.0
GT #2			108.7	108.7	0.0
GT #3			71.9	71.9	0.0
GT #4	ON-LINE	ON-LINE	45,253.9	45,280.6	24.0

Hours on Fuel

Fuel / Unit	Gen #7	#8	GT #1	GT #2	GT #3	GT #4
No. 6 Fuel Oil	0.0	---	---	---	---	---
No. 2 Fuel Oil	---	---	0.0	0.0	0.0	0.0
Natural Gas	0.0	---	0.0	0.0	0.0	24.0

Generation on No. 6 Fuel Oil

Unit	Gross Gen	Net Gen	BBLS@60	BTU/KW	BTU/KW
GEN #7	0.0	0.0	-	0.0	0.0

Generation on No. 2 Fuel Oil

Unit	Gross Gen	Net Gen	Gals @60	BTU/KW	BTU/KW
GEN #8	0.0	0.0	---	---	---
GT #1	0.0	0.0	0	0.0	0.0
GT #2	0.0	0.0	0	0.0	0.0
GT #3	0.0	0.0	0	0.0	0.0
GT #4	0.0	0.0	0	0.0	0.0
CC-1	0.0	0.0	0	0.0	0.0

Generation on Natural Gas

Unit	Gross Gen	Net Gen	MCF	BTU/KW	BTU/KW
GEN #7	0.0	-2.0	0.000	0.0	0.0
GEN #8	825.6	784.5	---	---	---
GT #1	0.0	0.0	0.000	0.0	0.0
GT #2	0.0	0.0	0.000	0.0	0.0
GT #3	0.0	0.0	0.000	0.0	0.0
GT #4	1,598.0	1,591.1	17,590.000	11,184.7	11,233.2
CC-1	2,423.6	2,375.6	17,590.000	7,374.7	7,523.7
			17,590.000		

Fuel Oil In Storage

No. 6 Fuel Oil (Bunker "C")

Tank	Max bbls	Feet	BBLS @ 60	Temp	API
North Tank	5,000	#NAME?	0.0	0.0	14
South Tank	5,000	#NAME?	0.0	0.0	14
Total	10,000		**0.0**	**BBLS**	

No. 2 Fuel Oil (Diesel)

Tank	Max gal	Feet	Gals @ 60	Temp	API
No. 1	115,000	1.60	5,693.0	0.0	36
No. 2	115,000	1.59	5,751.0	0.0	36
No. 3	210,000	21.91	157,161.0	0.0	36
No. 4	420,000	20.06	269,512.0	0.0	36
Total	860,000		**438,117.0**	**GALS**	

Water Usage

City Water CT4	115,806	
Previous	115,682	12,400
City Water #7	5,654	
Previous	5,654	0
City Water #8	38,186	
Previous	38,130	56,000
City Water RO	25,591	
Previous	25,556	35,000
Total Billable Water		**103,400 GALS**

KE-7 CLNG TWR BD	58,716,216	
Previous	58,716,216	0
KE-8 CLNG TWR BD (big)	73,513,216	
Previous	73,201,792	311,420
CT4 CLNG TWR BD	1,362,353	
Previous	1,361,027	1,326
KE-7 Boiler MU	270,877	
Previous	270,877	0
KE-8 Boiler MU	9,462,934	
Previous	9,454,696	8,238
#1 Well Water	31,615	
Previous	31,615	0
#3 Well Water	1,539,105,408	
Previous	1,538,210,304	895,104
CT4 Well Water	0	
Previous	0	0
Recovery Well #1	164,607	
Previous	162,791	454
Recovery Well #2	282,515	
Previous	282,453	16

KELLY GENERATING STATION
GAINESVILLE, FLORIDA

DAILY REPORT
PAGE 1

DATE OF THIS REPORT: 3/1/2017
SHIFT SUPERVISOR: KNAPP
PREPARED BY: STULL

Generation

Generator	Reading	MWH
STEAM #7	7,234	
Previous	7,234	0.0
STEAM #8	81,432	
Previous	80,606	825.6
GT #1	29,967	
Previous	29,967	0.0
GT #2	28,164	
Previous	28,164	0.0
GT #3	24,291	
Previous	24,291	0.0
GT #4	119,253	
Previous	117,655	1,598.0
CC-1 Generator Subtotal		2,423.6
Total Gross:		2,423.6

Auxiliary	Reading	MWH
#4 Diesel	413	
Previous	413	0.0
#7 AUX	1,898	
Previous	1,898	0.0
#7 Standby	2,782	
Previous	2,780	2.0
#8 480V Aux	592,448	
Previous	578,530	13.9
#8 Aux	24,596	
Previous	24,569	27.2
#8 Standby	3,582	
Previous	3,582	0.0
GT #1 Aux	1,968	
Previous	1,968	0.0
GT #2 Aux	1,743	
Previous	1,743	0.0
GT #3 Aux	4,704	
Previous	4,704	0.0
GT #4 Aux	53,302	
Previous	53,233	6.9
GT #4 Emg Feed	12,639	
Previous	12,639	0.0
GT #4 ALT 480V	31	
Previous	31	0.0
CC-1 Aux Subtotal		48.0
Total Auxiliaries:		50.0
Net Generation:		2,373.6

Units In Service

Unit	In	Out	Yesterday	Today	Hours
GEN #7			73,724.1	73,724.1	0.0
GEN #8	ON-LINE	ON-LINE	59,263.8	59,290.4	24.0
GT #1			153.4	153.4	0.0
GT #2			108.7	108.7	0.0
GT #3			71.9	71.9	0.0
GT #4	ON-LINE	ON-LINE	45,253.9	45,280.6	24.0

Hours on Fuel

Fuel / Unit	Gen #7	#8	GT #1	GT #2	GT #3	GT #4
No. 6 Fuel Oil	0.0	---	---	---	---	---
No. 2 Fuel Oil	---	---	0.0	0.0	0.0	0.0
Natural Gas	0.0	---	0.0	0.0	0.0	24.0

Generation on No. 6 Fuel Oil

Unit	Gross Gen	Net Gen	BBLS@60	BTU/KW	BTU/KW
GEN #7	0.0	0.0	-	0.0	0.0

Generation on No. 2 Fuel Oil

Unit	Gross Gen	Net Gen	Gals @60	BTU/KW	BTU/KW
GEN #8	0.0	0.0	---	---	---
GT #1	0.0	0.0	0	0.0	0.0
GT #2	0.0	0.0	0	0.0	0.0
GT #3	0.0	0.0	0	0.0	0.0
GT #4	0.0	0.0	0	0.0	0.0
CC-1	0.0	0.0	0	0.0	0.0

Generation on Natural Gas

Unit	Gross Gen	Net Gen	MCF	BTU/KW	BTU/KW
GEN #7	0.0	-2.0	0.000	0.0	0.0
GEN #8	825.6	784.5	---	---	---
GT #1	0.0	0.0	0.000	0.0	0.0
GT #2	0.0	0.0	0.000	0.0	0.0
GT #3	0.0	0.0	0.000	0.0	0.0
GT #4	1,598.0	1,591.1	17,590.000	11,184.7	11,233.2
CC-1	2,423.6	2,375.6	17,590.000	7,374.7	7,523.7
			17,590.000		

Fuel Oil In Storage

No. 6 Fuel Oil (Bunker "C")

Tank	Max bbls	Feet	BBLS @ 60	Temp	API
North Tank	5,000	#NAME?	0.0	0.0	14
South Tank	5,000	#NAME?	0.0	0.0	14
Total	10,000		**0.0**	**BBLS**	

No. 2 Fuel Oil (Diesel)

Tank	Max gal	Feet	Gals @ 60	Temp	API
No. 1	115,000	1.60	5,693.0	0.0	36
No. 2	115,000	1.59	5,751.0	0.0	36
No. 3	210,000	21.91	157,161.0	0.0	36
No. 4	420,000	20.06	269,512.0	0.0	36
Total	860,000		**438,117.0**	**GALS**	

Water Usage

City Water CT4	115,806	
Previous	115,682	12,400
City Water #7	5,654	
Previous	5,654	0
City Water #8	38,186	
Previous	38,130	56,000
City Water RO	25,591	
Previous	25,556	35,000
Total Billable Water		**103,400 GALS**

KE-7 CLNG TWR BD	58,716,216	
Previous	58,716,216	0
KE-8 CLNG TWR BD (big)	73,513,216	
Previous	73,201,792	311,420
CT4 CLNG TWR BD	1,362,353	
Previous	1,361,027	1,326
KE-7 Boiler MU	270,877	
Previous	270,877	0
KE-8 Boiler MU	9,462,934	
Previous	9,454,696	8,238
#1 Well Water	31,615	
Previous	31,615	0
#3 Well Water	1,539,105,408	
Previous	1,538,210,304	895,104
CT4 Well Water	0	
Previous	0	0
Recovery Well #1	164,607	
Previous	162,791	454
Recovery Well #2	282,515	
Previous	282,453	16

DAILY REPORT

KELLY GENERATING STATION
GAINESVILLE, FLORIDA

DATE OF THIS REPORT: 3/1/2017
SHIFT SUPERVISOR: KNAPP
PREPARED BY: STULL

Weather

Time of Observation:	8:00 AM	4:00 PM	Midnight
Atmospheric Conditions:	Partly Cloudy	Partly Cloudy	Clear
Temperature (Farenheit)	66.0	86.0	68.0
Barometer:	30.06	29.93	29.94
Rainfall (inches):	0.00	0.00	0.00

Fuel Oil Received

No. 6 Oil - BBLS	0
No. 2 Oil - GALS	0

Fuel Heat Content

No. 6 Fuel Oil BTUs / GAL	152,717.5
No. 2 Fuel Oil BTUs / GAL	137,567.2
Gas BTUs / CU Ft	1,016.1

Comments:
HRA 2' 9"

J. R. KELLY GENERATING STATION
MONTHLY SUMMARY REPORT FOR JANUARY 2015

Generation

Generator	Reading	MWH
STEAM #7	7,234	
BOM	7,234	0.0
STEAM #8	10,811	
BOM	5,360	5,451.4
GT #1	29,967	
BOM	29,967	0.0
GT #2	28,164	
BOM	28,164	0.0
GT #3	24,291	
BOM	24,291	0.0
GT #4	167,465	
BOM	155,235	12,230.0
CC-1 Generator Subtotal		17,681.4
Total Gross:		**17,681.4**

Auxiliary	Reading	MWH
#4 Diesel	413	
BOM	413	0.0
#7 AUX	1,898	
BOM	1,898	0.0
#7 Standby	1,094	
BOM	1,014	79.8
#8 480V Aux	80,728	
BOM	80,728	0.0
#8 Aux	2,576	
BOM	2,313	263.0
#8 Standby	2,074	
BOM	1,828	246.6
GT #1 Aux	1,865	
BOM	1,851	1.4
GT #2 Aux	1,514	
BOM	1,514	0.0
GT #3 Aux	4,436	
BOM	4,433	0.3
GT #4 Aux	6,573	
BOM	5,074	149.9
GT #4 Emg Feed	11,652	
BOM	11,652	0.0
GT #4 ALT 480V	0	
BOM	0	0.0
CC-1 Aux Subtotal		659.5
Total Auxiliaries:		**741.0**
Net Generation:		**16,940.4**

Units In Service

Unit	BOM	EOM	Hours
GEN #7	73,724.1	73,724.1	0.0
GEN #8	44,683.0	44,859.7	163.6
GT #1	153.4	153.4	0.0
GT #2	108.7	108.7	0.0
GT #3	71.9	71.9	0.0
GT #4	30,069.0	30,255.5	187.8

Fuel Heat Content

No. 6 Fuel Oil	BTUs / GAL	152,717.5
No. 2 Fuel Oil	BTUs / GAL	137,567.2
Natural Gas	BTUs / CU Ft	1,016.1

Hours on Fuel

Fuel / Unit	Gen #7	GT #1	GT #2	GT #3	GT #4
No. 6 Fuel Oil	0.0	---	---	---	---
No. 2 Fuel Oil	---	0.0	0.0	0.0	24.0
Natural Gas	0.0	0.0	0.0	0.0	163.8

Generation on No. 6 Fuel Oil

Unit	Gross Gen	Net Gen	BBLS@60	Gross BTU/KWH	Net BTU/KWH
GEN #7	0.0	0.0	0.0	0.0	0.0

Generation on No. 2 Fuel Oil

Unit	Gross Gen	Net Gen	Gals @60	Gross BTU/KWH	Net BTU/KWH
GEN #8	0.0	0.0	---	---	---
GT #1	0.0	0.0	0.0	0.0	0.0
GT #2	0.0	0.0	0.0	0.0	0.0
GT #3	0.0	0.0	0.0	0.0	0.0
GT #4	0.0	0.0	0.0	0.0	0.0
CC-1	0.0	0.0	0.0	0.0	0.0

Generation on Natural Gas

Unit	Gross Gen	Net Gen	MCF	Gross BTU/KWH	Net BTU/KWH
GEN #7	0.0	-79.8	0.0	0.0	0.0
GEN #8	5,451.4	4,941.8	---	---	---
GT #1	0.0	-1.4	0.0	0.0	0.0
GT #2	0.0	0.0	0.0	0.0	0.0
GT #3	0.0	-0.3	0.0	0.0	0.0
GT #4	12,230.0	12,080.1	150,566.0	12,509.4	12,664.6
CC-1	17,681.4	17,021.9	150,566.0	8,652.6	8,987.8
			150,566.0		

Fuel Oil In Storage

No. 6 Fuel Oil (Bunker "C")

Tank	Max bbls	Feet	BBLS @ 60		Temp	API
North Tank	5,000	0.00	0.0		0.0	14
South Tank	5,000	0.00	0.0		0.0	14
Total	10,000		**0.0**	**BBLS**		
No. 6 Fuel Oil Received			**0.0**	**BBLS**		

No. 2 Fuel Oil (Diesel)

Tank	Max gal	Feet	Gals @ 60		Temp	API
No. 1	115,000	24.63	91,143.0		50.0	36
No. 2	115,000	23.75	87,891.0		55.0	36
No. 3	210,000	2.94	21,923.0		0.0	36
No. 4	420,000	17.91	244,767.4		0.0	36
Total	860,000		**445,724.4**	**GALS**		
No. 2 Fuel Oil Received			**0.0**	**GALS**		

Water Usage

City Water CT4	41,047		
BOM	40,197	850,000	
City Water #7	784		
BOM	579	205,000	
City Water #8	242,530		
BOM	241,906	624,000	
City Water RO	116,978		
BOM	116,433	545,000	
Total Billable Water		**1,374,000**	**GALS**
KE-7 CLNG TWR BD	58,716,216		
BOM	58,716,216	0	
KE-8 CLNG TWR BD (big)	705,148,544		
BOM	700,675,200	4,473,344	
CT4 CLNG TWR BD	205,403		
BOM	192,950	1,245,300	
KE-7 Boiler MU	270,877		
BOM	270,877	0	
KE-8 Boiler MU	4,315,039		
BOM	4,167,082	147,957	
#1 Well Water	56,500		
BOM	33,533	22,967	
#3 Well Water	1,051,744,640		
Previous	1,044,441,600	7,303,040	
CT4 Well Water	0		
Previous	0	0	
Recovery Well #1	760,766		
Previous	670,052	90,714	

J. R. KELLY GENERATING STATION
CC GENERATION FOR JANUARY 2015

	STEAM #8				CT-4								CC-1					
	NATURAL GAS		FUEL OIL		NATURAL GAS				FUEL OIL				NATURAL GAS			FUEL OIL		
Day	Gross	Net	Gross	Net	Gross	Net	MCF	Hours	Gross	Net	Gallons	Hours	Gross	Net	MCF	Gross	Net	Gallons
1	0.0	-9.7	0.0	0.0	0.0	-3.4	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.1	0.0	0.0	0.0	0
2	0.0	-9.7	0.0	0.0	0.0	-3.6	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.3	0.0	0.0	0.0	0
3	0.0	-9.4	0.0	0.0	0.0	-3.3	0.0	0.0	0.0	0.0	0	0.0	0.0	-12.7	0.0	0.0	0.0	0
4	0.0	-9.6	0.0	0.0	0.0	-3.3	0.0	0.0	0.0	0.0	0	0.0	0.0	-12.9	0.0	0.0	0.0	0
5	0.0	-9.5	0.0	0.0	0.0	-3.4	0.0	0.0	0.0	0.0	0	0.0	0.0	-12.9	0.0	0.0	0.0	0
6	0.0	-10.0	0.0	0.0	0.0	-3.7	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.7	0.0	0.0	0.0	0
7	0.0	-9.9	0.0	0.0	0.0	-3.8	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.7	0.0	0.0	0.0	0
8	0.0	-9.9	0.0	0.0	0.0	-4.1	0.0	0.0	0.0	0.0	0	0.0	0.0	-14.0	0.0	0.0	0.0	0
9	0.0	-9.7	0.0	0.0	0.0	-4.2	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.9	0.0	0.0	0.0	0
10	0.0	-9.9	0.0	0.0	0.0	-3.9	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.8	0.0	0.0	0.0	0
11	0.0	-10.3	0.0	0.0	0.0	-3.9	0.0	0.0	0.0	0.0	0	0.0	0.0	-14.2	0.0	0.0	0.0	0
12	0.0	-9.4	0.0	0.0	0.0	-3.5	0.0	0.0	0.0	0.0	0	0.0	0.0	-12.9	0.0	0.0	0.0	0
13	0.0	-9.6	0.0	0.0	0.0	-0.5	0.0	0.0	0.0	0.0	0	0.0	0.0	-10.1	0.0	0.0	0.0	0
14	0.0	-9.6	0.0	0.0	0.0	-6.8	0.0	0.0	0.0	0.0	0	0.0	0.0	-16.4	0.0	0.0	0.0	0
15	0.0	-9.9	0.0	0.0	658.0	652.8	7,790.0	10.1	0.0	0.0	0	0.0	658.0	642.9	7,790.0	0.0	0.0	0
16	637.6	601.6	0.0	0.0	1,479.0	1,470.7	18,676.0	24.0	0.0	0.0	0	0.0	2,116.6	2,072.3	18,676.0	0.0	0.0	0
17	429.2	404.5	0.0	0.0	873.0	866.9	10,790.0	13.3	0.0	0.0	0	0.0	1,302.2	1,271.4	10,790.0	0.0	0.0	0
18	0.0	-9.9	0.0	0.0	0.0	-4.3	0.0	0.0	0.0	0.0	0	0.0	0.0	-14.2	0.0	0.0	0.0	0
19	0.0	-10.2	0.0	0.0	0.0	-4.2	0.0	0.0	0.0	0.0	0	0.0	0.0	-14.4	0.0	0.0	0.0	0
20	369.0	343.6	0.0	0.0	1,071.0	1,063.3	13,612.0	18.4	0.0	0.0	0	0.0	1,440.0	1,406.9	13,612.0	0.0	0.0	0
21	0.0	-9.2	0.0	0.0	0.0	-4.7	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.9	0.0	0.0	0.0	0
22	0.0	-10.5	0.0	0.0	0.0	-4.2	0.0	0.0	0.0	0.0	0	0.0	0.0	-14.7	0.0	0.0	0.0	0
23	0.0	-9.8	0.0	0.0	0.0	-3.7	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.5	0.0	0.0	0.0	0
24	0.0	-10.3	0.0	0.0	0.0	-3.8	0.0	0.0	0.0	0.0	0	0.0	0.0	-14.1	0.0	0.0	0.0	0
25	0.0	-9.4	0.0	0.0	0.0	-3.7	0.0	0.0	0.0	0.0	0	0.0	0.0	-13.1	0.0	0.0	0.0	0
26	0.0	-10.8	0.0	0.0	63.0	58.2	1,300.0	2.0	0.0	0.0	0	0.0	63.0	47.4	1,300.0	0.0	0.0	0
27	702.9	667.1	0.0	0.0	1,562.0	1,554.9	18,738.0	24.0	0.0	0.0	0	0.0	2,264.9	2,222.0	18,738.0	0.0	0.0	0
28	837.3	798.0	0.0	0.0	1,717.0	1,709.2	20,634.0	24.0	0.0	0.0	0	0.0	2,554.3	2,507.2	20,634.0	0.0	0.0	0
29	838.8	797.9	0.0	0.0	1,665.0	1,657.4	20,196.0	0.0	0.0	0.0	0	24.0	2,503.8	2,455.3	20,196.0	0.0	0.0	0
30	825.2	784.7	0.0	0.0	1,604.0	1,596.3	19,714.0	24.0	0.0	0.0	0	0.0	2,429.2	2,381.0	19,714.0	0.0	0.0	0
31	811.4	770.6	0.0	0.0	1,538.0	1,530.4	19,116.0	24.0	0.0	0.0	0	0.0	2,349.4	2,301.0	19,116.0	0.0	0.0	0
TOTAL	**5,451.4**	**4,941.8**	**0.0**	**0.0**	**12,230.0**	**12,080.1**	**150,566.0**	**163.8**	**0.0**	**0.0**	**0**	**24.0**	**17,681.4**	**17,021.9**	**150,566.0**	**0.0**	**0.0**	**0**

J. R. KELLY GENERATING STATION
STEAM GENERATION FOR JANUARY 2015

	Steam Unit No. 7							
	NATURAL GAS				FUEL OIL			
Day	Gross	Net	MCF	Hours	Gross	Net	Barrels	Hours
1	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
2	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
3	0.0	-2.5	0	0.0	0.0	0.0	0.0	0.0
4	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
5	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
6	0.0	-2.8	0	0.0	0.0	0.0	0.0	0.0
7	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
8	0.0	-2.7	0	0.0	0.0	0.0	0.0	0.0
9	0.0	-2.7	0	0.0	0.0	0.0	0.0	0.0
10	0.0	-2.5	0	0.0	0.0	0.0	0.0	0.0
11	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
12	0.0	-2.3	0	0.0	0.0	0.0	0.0	0.0
13	0.0	-2.3	0	0.0	0.0	0.0	0.0	0.0
14	0.0	-2.4	0	0.0	0.0	0.0	0.0	0.0
15	0.0	-2.4	0	0.0	0.0	0.0	0.0	0.0
16	0.0	-2.7	0	0.0	0.0	0.0	0.0	0.0
17	0.0	-2.5	0	0.0	0.0	0.0	0.0	0.0
18	0.0	-2.3	0	0.0	0.0	0.0	0.0	0.0
19	0.0	-2.4	0	0.0	0.0	0.0	0.0	0.0
20	0.0	-2.7	0	0.0	0.0	0.0	0.0	0.0
21	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
22	0.0	-2.5	0	0.0	0.0	0.0	0.0	0.0
23	0.0	-2.7	0	0.0	0.0	0.0	0.0	0.0
24	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
25	0.0	-2.3	0	0.0	0.0	0.0	0.0	0.0
26	0.0	-2.5	0	0.0	0.0	0.0	0.0	0.0
27	0.0	-2.7	0	0.0	0.0	0.0	0.0	0.0
28	0.0	-2.6	0	0.0	0.0	0.0	0.0	0.0
29	0.0	-3.0	0	0.0	0.0	0.0	0.0	0.0
30	0.0	-2.7	0	0.0	0.0	0.0	0.0	0.0
31	0.0	-2.8	0	0.0	0.0	0.0	0.0	0.0
TOTAL	**0.0**	**-79.8**	**0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

Report Printed on 8/31/2018 9:18 AM

J. R. KELLY GENERATING STATION
GT GENERATION FOR JANUARY 2015

	GT-1								GT-2								GT-3							
	NATURAL GAS				FUEL OIL				NATURAL GAS				FUEL OIL				NATURAL GAS				FUEL OIL			
Day	Gross	Net	MCF	Hours	Gross	Net	Gallons	Hours	Gross	Net	MCF	Hours	Gross	Net	Gallons	Hours	Gross	Net	MCF	Hours	Gross	Net	Gallons	Hours
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	-0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
31	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	**0.0**	**-1.4**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**-0.3**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**

JR KELLY MIDNIGHT METER READINGS

SHIFT SUPERVISOR: BASON **DATE:** NOV.28,2007

GENERATORS

UNIT	GEN.	AUX.	HOURS
# 7	6,815	1257	72377.9
# 8	81,385	95606	30112.8
CT 1	29,154		66.8
CT 2	27,478		46.0
CT 3	23,153		92.1
CT 4	9,039		11138.2
#4 AUX		413	
CT 4 Emg Feed		6731	
# 1 WELL		2441.0	
# 7 START/STDBY			
# 8 START/STDBY			
8 480 V AUX			

CALCULATIONS

GROSS	AUX	NET	GAS	OIL
x 1.0				
x 0.1				
x 0.01				
x 0.8				
x 1.0		OFF LINE AUX. -		
x 0.1		INCHES OF RAIN FALL -	0	

DEMINERALIZER TO WASH

DEMINERALIZER TO INJECTION

COOLING TOWER

UNIT	BLOWDOWN	TIME
# 7		2400
# 8 big		2400
# 8 lil	26347952	2400
CC-1 (HRSG) BOILER		2400

BOILER MAKE-UP

270226
<-- Enter this into PC
240766

CITY WATER METERS

#6	4000
#7	
#8	

LABORATORY

METERS		TIME
LAB	173289 00	2400
#1 WELL	0	2400
LVWWT		2400
#3 WELL		2400
RO City Water		2400

RECOVERY WELLS

RW #1		RW #2		RW #3	

FUEL METERS

UNIT	OIL	GAS	
# 7	4898369.5	84745920	
# 8			
CT 1	37829612.0	36688700	
CT 2	33943.3	2675151	
CT 3	69572.1	40664540	
CT 4	727925.3	10926614	x 1000
GAS YARD		11459183	
GAINESVILLE GAS / GRU		6724	

GROUND INDICATORS

UNIT	A-PHASE	B-PHASE	C-PHASE
# 7	345	325	340
# 8	290	265	285

BUNKER "C" - #6 FUEL OIL STORAGE

TANK	FEET	INCHES	16THS	TEMP
NORTH	25	8	3	80
SOUTH	26	0	0	98

DIESEL - #2 FUEL OIL STORAGE

TANK	FEET	INCHES	16THS	TEMP
N. WEST #1	21	5	0	80
N. EAST #2	22	7	12	76
S. EAST #3	27	2	12	76
S. WEST #4	5	10	8	64

TIME	BAROMETER	RAIN	WEATHER	TEMP	TIME
8AM	30.15	0	CLOUDY	61	8AM
4PM	30.07	0	CLOUDY	74	4PM
12 MN	30.09	0	PTLY CLOUDY	74	12 MN

Deerhaven Unit #2 N2 Blanket Log Sheet

DATE:_____

Time	N2 Bottle Pressure	N2 Regulator Pressure (outlet)	Drum Pressure (DCS)
0700			
1000			
1300			
1600			
1900			
2200			
0100			
0400			

NOTE: Do Not add water to the drum or open any vent or drain after a N2 Blanket has been installed.

FORM 1

DRAINAGE OF STORAGE CONTAINMENT REPORT

1. Date of Drainage: _____

2. Time Started Drainage: _____

3. Location of Storage Containment:

_____

_____

_____

4. Estimated Quantity Drained: _____

5. Duration Containment Drained:

_____ Hours _____ Min.

6. Appearance of Drained Liquid:

_____

_____

_____

7. Results of Laboratory Analysis:

_____

_____

_____

8. Certification of Drain Valve Closed:

_____

FORM 09-0003 V 1
Energized Electrical Work Permit
Jan 12, 2010

Permit # Procedure # Job/Work Order Number _____

PART I: TO BE COMPLETED BY THE ISSUING AGENT (Production Department):

(1) Description of circuit/equipment/job location: _____
_____

(2) Description of work to be done: _____

(3) Justification of why the circuit/equipment cannot be de-energized or the work deferred until the next scheduled outage:
_____

Start Date:_____ Expire Date: _____ _____
Requester/Title Date

PART II: TO BE COMPLETED BY THE ELECTRICALLY QUALIFIED PERSONS *DOING* THE WORK:

(1)	Detailed job description procedure to be used in performing the above detailed work including hazards, conditions, mechanical, space obstructions, other voltages: _____ _____					
(2)	Description of the Safe Work Practices: ☐ LOTO ☐ Two Workers ☐Safety Watch ☐Notify affected workers ☐_____ Reason not to LOTO _____ Restart Checks Required: _____					
(3)	Flash Hazard (0-4 or X)		Shock Hazard (max V)		Working Distance	
	Flash Boundary		Limited Approach		Glove Class, minimum	
	Incident Energy (Cal/cm^2)		Restricted Approach			
			Prohibited Approach			
(4)	Protective Equipment					
	☐ Natural Fiber Clothing	☐ Safety Glasses / Goggles	☐ Ear Plugs	☐ Leather Shoes		
	☐ FR Clothing	☐ Face Shield	☐ Leather Gloves	☐ Voltage-rated Shoes		
	☐Voltage-rated Tools	☐ Balaclava Hood	☐ Voltage-rated Gloves	☐ Hard Hat		
	☐ Category III Meter	☐ 2 Layer Switching Hood	☐ Flashsuit	☐ Other		
	Other:					
(5)	Means employed to restrict access of unqualified persons from work area: _____					

(6)

Authorized Workers	**Company/Dept**	**Authorized Workers**	**Company/Dept**
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

PART III: APPROVAL(S) TO PERFORM THE WORK WHILE ELECTRICALLY ENERGIZED:

_____ _____
Qualified Person Performing Work Date Qualified Person Reviewing Work Date

_____ _____
IC&E Supervisor Date Shift Supervisor Date

_____ _____
Outage Planning and Maj Maint Mgr (> 240v) Date Production Manager (>480v) Date

PART IV: WORK
Evidence of completion of Job Briefing including discussion of any job-related hazards:
_____

PART V: POST WORK-FEEDBACK_____ **(Worker Initials)**
_____

_____ _____
Manager/Representative Close-out Date

Instructions for completing the Energized Electrical Work Permit

The permit describes the circuit and equipment to be worked on, justification for energized work, safe work practices, shock hazard analysis and protection boundary, flash hazard analysis and protection boundary, personal protective equipment (PPE) required, means employed to restrict access to unqualified persons, evidence of pre-job briefing and any post job feedback, and approving signatures. The Energized Electrical Work Permit is to be used when live parts cannot be placed in an electrically safe condition to perform the work.

1. Part 1 – to be filled out by the requestor for the electrical work permit

a) Description of the Location and Circuit
b) Description of the task
c) Justification of why the task must be done working on or near live parts.
d) The Start Date and Time and the Estimated Finish Date and Time for the job.

2. Part 2 – to be filled out by the worker or supervisor/designee

a) Detailed job description. On the Energized Electrical Work Permit, the hazards of the job are to be identified, such as:
   i. Electrical Conditions: massive ground(s) adjacent to the work, live input or output terminals;
   ii. Mechanical Conditions: rotating equipment, pinch points or shear hazards of the equipment or adjacent equipment that may need to be locked out.
   iii. Environmental Conditions: flammable vapors, combustible, toxic vapors, or other physical or biological hazards.
   iv. Working Space Constraints: spaces in front of electrical boxes not meeting standards, energized circuits or parts behind the employee, or irregular working surface.
   v. Obstructions in the Area: obstructions that make emergency escape difficult and obstructions to the work.
   vi. Other Energized Circuits or Parts: other energized circuits close by that may have different voltage, different phase, or require different lockout locations to de-energize.
b) Procedures of the task are to be reviewed to ensure that proper precautions have been included such as:
   i. Warnings Specified: before a step involving a particular hazard, define it in unique, clear type.
   ii. Caution Notes: are used to warn employee of actions that may damage equipment.
   iii. Warning Notes: are used to warn employee of actions that may cause severe injury or death.

c) The shock and arc-flash hazard and boundaries. This information may be obtained from the Arc Flash Warning Label.
d) Personal Protection Equipment required. This information may be obtained from the Arc Flash Warning Label.
e) Clearance Zone and means to restrict unqualified personnel if required.
f) All Authorized Workers involved will sign the permit in Part 2.

3. Part 3 – Approval(s) to perform the work while electrically energized.

a) The Qualified Person performing the work will sign in the approval section indicating they have reviewed the written request and consider it to be complete and accurate. And that he or she feels that the work can be done safely.
b) A Qualified Person reviews the permit and indicates by signature they agree with the information in Part 1 and 2. An independent review of High-Hazard tasks ensures that the hazards have not been overlooked, and hazards are mitigated where possible. And that he or she approves that the work can be done safely.
c) The IC&E Supervisor verifies the employee has the current skill and also task-specific training by signing the permit in part 3. Those not trained are not to be allowed to under take the work. He also ensures that the hazards have not been overlooked, and hazards are mitigated where possible. And that he or she approves that the work can be done safely.
d) For work at 240V and below the reviews by the Qualified Person performing the work, the Qualified Person reviewing the work, and the IC&E supervisor are sufficient. For work above 240V but below 480V, the IC&E supervisor must review the permit with the Maintenance Manager. Both individuals must ensure no hazards have not been overlooked and mitigate where possible. The Maintenance Manager must approve the permit by signature.
e) For work above 480V, the IC&E Supervisor and the Maintenance Manager must review the permit with the Plant Manager. If satisfied the work can be accepted in the manner described without undue hazards to the individual accomplishing the work, the Plant Manager approves the permit by signature.

For voltages above 240v, the following must be performed:

a) Job Safety Analysis completed or equivalent review is required for periodic high-hazard tasks. The hazards and the necessary controls are to be identified for each step of the task.
b) Employee briefing before the task: specific instructions or training may be required to clarify particular hazards for the Authorized Workers. Warnings are to be pointed out and clarified when questions arise during briefing.

c) Approval to proceed: the Maintenance Manager will review all work above 240v and can approve work 480v and below. The Plant Manager will approve all energized work above 480v.

4. Part 4 - Work

Include evidence of completion of the Job Briefing, which may be the signature of the person performing the briefing, or the initials of the Authorized Worker verifying he/she reviewed for any job-related hazards.

5. Part 5 – Post Work Feedback

For the Energized Electrical Work Permit, provide post-work feedback, if required. The worker initials the permit at job completion, and notes any feedback. A copy of the permit is to be kept by workers at the work site. A copy is to be sent to the PPO3 at Deerhaven or Supervisor at JR Kelly to be maintained with Clearance Permits.

Review and Issuance of Energized Electrical Work Permit for Racking in/out Circuit Breakers.

a) The Supervisor obtains the permit and reviews the background information of the job or task, the hazards and the precautions to be taken, and the distance for the clearance zone(s).
b) The supervisor verifies that the employee has the necessary current training for this type of task.
c) After discussing the procedure and job with the worker, the supervisor and the worker sign the permit.
d) For voltages above 480v an independent review must be conducted and will include the following:
    i. The itemized procedural steps for the job or task.
    ii. A Job Safety Analysis or equivalent review to identify the hazards and their controls for each step.
    iii. Signature of the independent reviewer(s) indicating that the controls for the job task are adequate to protect the employee.
    iv. Approval by Plant Manager.

FORM 09-0003 V 1
Energized Electrical Work Permit
Jan 12, 2010

Permit # Procedure # Job/Work Order Number _____

PART I: TO BE COMPLETED BY THE ISSUING AGENT (Production Department):

(1) Description of circuit/equipment/job location: _____
_____

(2) Description of work to be done: _____

(3) Justification of why the circuit/equipment cannot be de-energized or the work deferred until the next scheduled outage:
_____

Start Date:_____ Expire Date: _____ _____
Requester/Title Date

PART II: TO BE COMPLETED BY THE ELECTRICALLY QUALIFIED PERSONS *DOING* THE WORK:

(1)	Detailed job description procedure to be used in performing the above detailed work including hazards, conditions, mechanical, space obstructions, other voltages: _____ _____					
(2)	Description of the Safe Work Practices: ☐ LOTO ☐ Two Workers ☐Safety Watch ☐Notify affected workers ☐_____ Reason not to LOTO _____ Restart Checks Required: _____					
(3)	Flash Hazard (0-4 or X)		Shock Hazard (max V)		Working Distance	
	Flash Boundary		Limited Approach		Glove Class, minimum	
	Incident Energy (Cal/cm^2)		Restricted Approach			
			Prohibited Approach			
(4)	Protective Equipment					
	☐ Natural Fiber Clothing	☐ Safety Glasses / Goggles	☐ Ear Plugs	☐ Leather Shoes		
	☐ FR Clothing	☐ Face Shield	☐ Leather Gloves	☐ Voltage-rated Shoes		
	☐Voltage-rated Tools	☐ Balaclava Hood	☐ Voltage-rated Gloves	☐ Hard Hat		
	☐ Category III Meter	☐ 2 Layer Switching Hood	☐ Flashsuit	☐ Other		
	Other:					
(5)	Means employed to restrict access of unqualified persons from work area: _____					

(6)

Authorized Workers	**Company/Dept**	**Authorized Workers**	**Company/Dept**
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

PART III: APPROVAL(S) TO PERFORM THE WORK WHILE ELECTRICALLY ENERGIZED:

_____ _____
Qualified Person Performing Work Date Qualified Person Reviewing Work Date

_____ _____
IC&E Supervisor Date Shift Supervisor Date

_____ _____
Outage Planning and Maj Maint Mgr (> 240v) Date Production Manager (>480v) Date

PART IV: WORK
Evidence of completion of Job Briefing including discussion of any job-related hazards:
_____

PART V: POST WORK-FEEDBACK_____ **(Worker Initials)**
_____

_____ _____
Manager/Representative Close-out Date

Instructions for completing the Energized Electrical Work Permit

The permit describes the circuit and equipment to be worked on, justification for energized work, safe work practices, shock hazard analysis and protection boundary, flash hazard analysis and protection boundary, personal protective equipment (PPE) required, means employed to restrict access to unqualified persons, evidence of pre-job briefing and any post job feedback, and approving signatures. The Energized Electrical Work Permit is to be used when live parts cannot be placed in an electrically safe condition to perform the work.

1. Part 1 – to be filled out by the requestor for the electrical work permit

a) Description of the Location and Circuit
b) Description of the task
c) Justification of why the task must be done working on or near live parts.
d) The Start Date and Time and the Estimated Finish Date and Time for the job.

2. Part 2 – to be filled out by the worker or supervisor/designee

a) Detailed job description. On the Energized Electrical Work Permit, the hazards of the job are to be identified, such as:
   i. Electrical Conditions: massive ground(s) adjacent to the work, live input or output terminals;
   ii. Mechanical Conditions: rotating equipment, pinch points or shear hazards of the equipment or adjacent equipment that may need to be locked out.
   iii. Environmental Conditions: flammable vapors, combustible, toxic vapors, or other physical or biological hazards.
   iv. Working Space Constraints: spaces in front of electrical boxes not meeting standards, energized circuits or parts behind the employee, or irregular working surface.
   v. Obstructions in the Area: obstructions that make emergency escape difficult and obstructions to the work.
   vi. Other Energized Circuits or Parts: other energized circuits close by that may have different voltage, different phase, or require different lockout locations to de-energize.
b) Procedures of the task are to be reviewed to ensure that proper precautions have been included such as:
   i. Warnings Specified: before a step involving a particular hazard, define it in unique, clear type.
   ii. Caution Notes: are used to warn employee of actions that may damage equipment.
   iii. Warning Notes: are used to warn employee of actions that may cause severe injury or death.

c) The shock and arc-flash hazard and boundaries. This information may be obtained from the Arc Flash Warning Label.
d) Personal Protection Equipment required. This information may be obtained from the Arc Flash Warning Label.
e) Clearance Zone and means to restrict unqualified personnel if required.
f) All Authorized Workers involved will sign the permit in Part 2.

3. Part 3 – Approval(s) to perform the work while electrically energized.

a) The Qualified Person performing the work will sign in the approval section indicating they have reviewed the written request and consider it to be complete and accurate. And that he or she feels that the work can be done safely.
b) A Qualified Person reviews the permit and indicates by signature they agree with the information in Part 1 and 2. An independent review of High-Hazard tasks ensures that the hazards have not been overlooked, and hazards are mitigated where possible. And that he or she approves that the work can be done safely.
c) The IC&E Supervisor verifies the employee has the current skill and also task-specific training by signing the permit in part 3. Those not trained are not to be allowed to under take the work. He also ensures that the hazards have not been overlooked, and hazards are mitigated where possible. And that he or she approves that the work can be done safely.
d) For work at 240V and below the reviews by the Qualified Person performing the work, the Qualified Person reviewing the work, and the IC&E supervisor are sufficient. For work above 240V but below 480V, the IC&E supervisor must review the permit with the Maintenance Manager. Both individuals must ensure no hazards have not been overlooked and mitigate where possible. The Maintenance Manager must approve the permit by signature.
e) For work above 480V, the IC&E Supervisor and the Maintenance Manager must review the permit with the Plant Manager. If satisfied the work can be accepted in the manner described without undue hazards to the individual accomplishing the work, the Plant Manager approves the permit by signature.

For voltages above 240v, the following must be performed:

a) Job Safety Analysis completed or equivalent review is required for periodic high-hazard tasks. The hazards and the necessary controls are to be identified for each step of the task.
b) Employee briefing before the task: specific instructions or training may be required to clarify particular hazards for the Authorized Workers. Warnings are to be pointed out and clarified when questions arise during briefing.

c) Approval to proceed: the Maintenance Manager will review all work above 240v and can approve work 480v and below. The Plant Manager will approve all energized work above 480v.

4. Part 4 - Work

Include evidence of completion of the Job Briefing, which may be the signature of the person performing the briefing, or the initials of the Authorized Worker verifying he/she reviewed for any job-related hazards.

5. Part 5 – Post Work Feedback

For the Energized Electrical Work Permit, provide post-work feedback, if required. The worker initials the permit at job completion, and notes any feedback. A copy of the permit is to be kept by workers at the work site. A copy is to be sent to the PPO3 at Deerhaven or Supervisor at JR Kelly to be maintained with Clearance Permits.

Review and Issuance of Energized Electrical Work Permit for Racking in/out Circuit Breakers.

a) The Supervisor obtains the permit and reviews the background information of the job or task, the hazards and the precautions to be taken, and the distance for the clearance zone(s).
b) The supervisor verifies that the employee has the necessary current training for this type of task.
c) After discussing the procedure and job with the worker, the supervisor and the worker sign the permit.
d) For voltages above 480v an independent review must be conducted and will include the following:
    i. The itemized procedural steps for the job or task.
    ii. A Job Safety Analysis or equivalent review to identify the hazards and their controls for each step.
    iii. Signature of the independent reviewer(s) indicating that the controls for the job task are adequate to protect the employee.
    iv. Approval by Plant Manager.

DATE: _____

GAS TURBINE LOG SHEET

UNIT NO. _____

SHIFT CHECK	MN	12
LUBE OIL RESV LEVEL > 1/4		
COOLING LEVEL > 1/2		
CO2 SYSTEM PRESSURE		
CO2 SYSTEM LEVEL		
CO2 SYSTEM ALARM STATUS		
FUEL STOP VALVES OPEN		
ALL DOORS CLOSED		
ANN. ALARMS RESET		
AMBIENT AIR TEMPERATURE		
OIL / WATER LEAKS		
SUMPS PUMPED OUT		
FIRE DOORS OPEN		
AC UNIT IN SERVICE		
BATTERY CHARGER AMPS		
READY TO START		
STARTING TIME		
SHUT DOWN TIME		

MN OIL INTEGRATOR	
MN GAS INTEGRATOR	
MN KWH	
MN AUX. KWH	
TOTAL FIRED HOURS	
TOTAL STARTS	
FIRED STARTS	

	MN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
MEGAWATTS																								
MEGAVARS																								
FIELD VOLTS																								
FIELD AMPS																								
COOL WATER PRESS																								
LUBE OIL DRN TEMP																								
LUBE OIL HDR TEMP																								
LUBE OIL FILTER ^P																								
LUBE OIL PUMP PRESS																								
AVG EXHAUST TEMP																								
COMP DISCH PRESS																								
#2 OIL SUPPLY PRESS																								
FUEL OIL ^P																								
GAS SUPPLY PRESS																								
FUEL G / O																								
RATCHET (FOR 6 HOURS AFTER SHUTDOWN)																								

REMARKS:

OPERATOR _____ 07 - 19

_____ 19 - 07

*** LIST ALL ALARMS ON REAR OF LOG SHEET

FORM DH 09-0013

revised 04/16/11

DATE: _____

GAS TURBINE LOG SHEET

UNIT NO. 3 GT

SHIFT CHECK	MN	12
LUBE OIL RESV LEVEL > 1/4		
COOLING LEVEL > 1/2		
CO2 SYSTEM PRESSURE		
CO2 SYSTEM LEVEL		
CO2 SYSTEM ALARM STATUS		
GAS FILTER SITE GLASS LEVEL		
FUEL STOP VALVES OPEN		
ALL DOORS CLOSED		
ANN. ALARMS RESET		
MOISTURE SEPARATOR DRAINED		
OIL / WATER LEAKS		
SUMPS PUMPED OUT		
FIRE DOORS OPEN		
AC UNIT IN SERVICE		
BATTERY CHARGER AMPS		
READY TO START		
LUBE OIL HEADER TEMP		
STARTING TIME		
SHUT DOWN TIME		
MN OIL INTEGRATOR		
MN GAS INTEGRATOR		
MN KWH		
MN AUX. KWH		
TOTAL FIRED HOURS		
TOTAL STARTS		
FIRED STARTS		

OPERATOR _____ 07 - 19

19 - 07

	MN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
MEGAWATTS																								
MEGAVARS																								
FIELD VOLTS																								
FIELD AMPS																								
COOL WATER PRESS																								
LUBE OIL DRN TEMP																								
LUBE OIL HDR TEMP																								
LUBE OIL FILTER ^P																								
LUBE OIL PUMP PRESS																								
BEARING HDR PRESS.																								
OIL SUMP LEVEL																								
HYD OIL PMP DISC. PRESS.																								
HYD OIL FILTER ^p																								
FUEL G / O																								
#2 FUEL OIL PRESS																								
#2 FUEL OIL ^P																								
GAS SUPPLY PRESS																								
GAS CV DISCH PRESS.																								
GAS FILTER ^p																								
AVG EXHAUST TEMP																								
COMP DISCH PRESS																								
L. AIR DRYER PRESS.																								
R. AIR DRYER PRESS.																								
RATCHET (FOR 6 HOURS AFTER SHUTDOWN)																								

REMARKS:

*** NOTE: NO_X LIMIT ON GAS IS 15ppm's; NO_X LIMIT ON #2 FUEL OIL IS 42ppm's

*** LIST ALL ALARMS ON REAR OF LOG SHEET

Month: Year:

Day	Shift	Train Number	Train Year
1	Day		
	Night		
2	Day		
	Night		
3	Day		
	Night		
4	Day		
	Night		
5	Day		
	Night		
6	Day		
	Night		
7	Day		
	Night		
8	Day		
	Night		
9	Day		
	Night		
10	Day		
	Night		
11	Day		
	Night		
12	Day		
	Night		
13	Day		
	Night		
14	Day		
	Night		
15	Day		
	Night		

Day	Shift	Train Number	Train Year
16	Day		
	Night		
17	Day		
	Night		
18	Day		
	Night		
19	Day		
	Night		
20	Day		
	Night		
21	Day		
	Night		
22	Day		
	Night		
23	Day		
	Night		
24	Day		
	Night		
25	Day		
	Night		
26	Day		
	Night		
27	Day		
	Night		
28	Day		
	Night		
29	Day		
	Night		
30	Day		
	Night		

Unit 1 Emergency Diesel			Reason Unit was Run			
Date	Start Hour Meter Reading	Stop Hour Meter Reading	Emergency Use	Maintenance	Other	Notes

When the diesel is run, note the date, hour meter reading when
engine started and stopped, check the reason for running the unit and note any conditions.

Unit 1 Weekly Report

Shift Supervisor : _____ CRO _____

Load Is Between 18 - 22 MW S
Transfer Auxiliaries To Start Breaker

Date _____ Start Time _____ Completion Time _____

Unit Load _____ Throttle Pressure _____ Steam Temperature. _____

Exercise Throttle Valves Left Side Operation _____ Right Side Operation _____

Turbine Bearing Vibration 1) _____ 2) _____ 3) _____ 4) _____ 5) _____ 6) _____ 7) _____

Smoothing Oil Pressure ---- > _____

Turbine Bearing Oil Pressure ---- > _____

Main Oil Pump Suction Pressure ---- > _____

Main Oil Pump Discharge Pressure ---- > _____

Governing Impeller Discharge Oil Pressure ---- > _____

Hydrogen Pressure ---- > _____

Auxiliary Oil Pump ---- Cut In Press > _____ Pump Discharge Pressure _____

Turning Gear Oil Pump ---- Cut In Press > _____ Pump Discharge Pressure _____

D.C. Oil Pump ---- Cut In Press > _____ Pump Discharge Pressure _____

Check Turbine Lube Oil Screen ---- _____

Seal Oil Pressure ---- -> Turbine End _____ Exciter End _____

Generator Leak Detector Check ---- > East _____ West _____

Regenerate Hydrogen Gas Dryer ---- > North _____ South _____

Turbine Lube Oil Cooler In Service ---- > North _____ South _____

Condenser Vacuum Pump Roto-meter ---- > North _____ South _____

EHC Oil Pump Pressure ---- > EHC-1 ☐ EHC-2 ☐ Pump Discharge Pressure _____

EHC Oil System Pressure ---- > _____ _____

Seal Oil Pressure At Pump Discharge ---- > _____

Seal Oil Backup Valve Pressure ---- Cut In Press > _____ Pump Discharge Pressure _____

D.C. Seal Oil Pump Pressure ---- Cut In Press > _____ Pump Discharge Pressure _____

East Air Heater Drive Test ---- > _____

West Air Heater Drive Test ---- > _____

Rotate Deep Well Pump (Selector Position) 1☐ 2☐ 3☐ 4☐

Rotate High Head Pump (Selector Position) 1☐ 2☐ 3☐ 4☐

Check Main Fire Pump Auto Operation Cut In Press > _____ Pump Discharge Pressure _____

Essential Diesel Generator Unit #1 House ---- -> Control Panel _____

Essential Diesel Generator Pump ---- > Control Panel _____ Diesel _____

Comments

Unit 2 Emergency Diesel			Reason Unit was Run			
Date	Start Hour Meter Reading	Stop Hour Meter Reading	Emergency Use	Maintenance	Other	Notes

When the diesel is run, note the date, hour meter reading when
engine started and stopped, check the reason for running the unit and note any conditions.

UNITS READY FOR FULL LOAD

Time/Date Dispatch called for Unit	Unit	RFL time requested by dispatch	GT's Start Initiated	Fire in furnace time	Unit On Line Time	Ready for Full Load Time	Notes

PLANNING AHEAD

TODAY'S DATE: _____ **TIME:** _____

☐ **HOT WORK PERMIT**

☐ **CONFINED SPACE PERMIT**

☐ **MAINTENANCE TEST PERMIT**

WORK AREA(S) REQUESTED :

1 _____
2 _____
3 _____
4 _____

WORK TO BE PERFOMRED:

_____
_____
_____
_____
_____

DATE AND TIME NEEDED: _____

NAME OF REQUESTER AND COMPANY:

_____

SIGNATURE: _____

Pump House Emergency Diesel			Reason Unit was Run			
Date	Start Hour Meter Reading	Stop Hour Meter Reading	Emergency Use	Maintenance	Other	Notes

When the diesel is run, note the date, hour meter reading when
engine started and stopped, check the reason for running the unit and note any conditions.

Deerhaven Unit #2 Soot Blowing Running Log

Date	Time	IR's	IK's

Deerhaven Generating Station

Paint Shop Monthly Tank Inspection Report

Name of Inspector:_____

Date of Inspection:_____

EPA Tank Identification	Tank Wall and Coating	Tank Support Structure	Containment Drain Valve Locked	General Area	Containment Liquid Level	Piping and Valving	Piping Support Structure	Unloading Area	Labels and Warning Signs	Emergency Equipment	Gauges	Internal Leak Detection [2]	Comments
						N/A	N/A	N/A			N/A	N/A	
A-01-HS Hi-Solv 15 Tank			N/A			N/A		N/A			N/A	N/A	
						N/A	N/A	N/A			N/A	N/A	

Instructions: This form will be completed monthly in conjunction with the fire report.
If the condition is acceptable, place a check mark in the appropriate column.
If unsatisfactory, mark "unsat" and explain why. Fill out a Maintenance Request to have the condition corrected.
Retain one copy for the Department and forward the original to Nicole Odom, Engineering Tech..

revised3-2007

REV: 3/22/07

Deerhaven Generating Station

Warehouse Monthly Tank Inspection Report

Name of Inspector:_____

Date of Inspection:_____

EPA Tank Identification	Tank Wall and Coating	Tank Support Structure	Containment Drain Valve Locked	General Area	Containment Liquid Level	Piping and Valving	Piping Support Structure	Unloading Area	Labels and Warning Signs	Emergency Equipment	Gauges	Internal Leak Detection [2]	Comments
A-01-G Gasoline Convault Tank [1]		N/A	N/A		N/A		N/A			N/A			
A-01-K Kerosene Convault Tank [1]		N/A	N/A		N/A		N/A			N/A			
						N/A	N/A	N/A			N/A	N/A	

Instructions: This form will be completed monthly in conjunction with the fire report.
If the condition is acceptable, place a check mark in the appropriate column.
If unsatisfactory, mark "unsat" and explain why. Fill out a Maintenance Request to have the condition corrected.
Retain one copy for the Department and forward the original to Nicole Odom, Engineering Tech..

NOTES:

1 These are steel tanks encased in concrete. They are equipped with internal leak detection.

2 Gasoline tank is equipped with a tube that must be manually gauged ("dip-sticked") for presence of product.
Kerosene tank is equipped with a "pop up" gauge that will be visible if product is present.

3 This tank was formerly designated as a "NAVCO building" tank. It has been relocated to the ball mill.

W:\U0070\ENV\TANKINS1.XLS 3-22-07

REV: 3-22-07

Deerhaven Generating Station

Operations Monthly Tank Inspection Report

Name of Inspector:_____

Date of Inspection:_____

EPA Tank Identification	Tank Wall and Coating	Tank Support Structure	Cathodic Protection [2]	Containment Walls and Floors	Containment Drain Valve Locked	General Area	Overfill Sump [3]	Containment Liquid Level [4, 5]	Piping and Valving	Piping Support Structure	Unloading Area	Labels and Warning Signs	Emergency Equipment	High Level Alarm	Gauges	Internal Leak Detection [6]	Comments
A-01-LO Unit 1 Lube Oil Reservoir			N/A	N/A	N/A		N/A	N/A						N/A		N/A	
A-06-LO Unit 1 Lube Oil Reserve Tank			N/A	N/A	N/A		N/A	N/A						N/A	N/A	N/A	
A-02-LO Unit 2 Lube Oil Reservoir			N/A	N/A	N/A		N/A	N/A						N/A		N/A	
A-04-LO Unit 2 East Lube Oil Reserve Tank			N/A	N/A	N/A		N/A	N/A						N/A		N/A	
A-05-LO Unit 2 West Lube Oil Reserve Tank			N/A	N/A	N/A		N/A	N/A						N/A		N/A	
Unit #1 Emergency Diesel Day Tank			N/A	N/A	N/A		N/A										
Unit #2 Emergency Diesel Day Tank			N/A	N/A	N/A		N/A										
Pump House Emergency Diesel Day Tank			N/A	N/A	N/A		N/A										
A-01-6 #6 Oil North Bulk Tank							N/A									N/A	
A-01-2 #6 Oil South Bulk Tank							N/A									N/A	
#6 Oil South Bulk Tank South Unloading Station	N/A	N/A	N/A	N/A	N/A		N/A	N/A						N/A		N/A	
#6 Oil South Bulk Tank North Unloading Station	N/A	N/A	N/A	N/A	N/A		N/A	N/A						N/A		N/A	
#6 Oil North Bulk Tank South Unloading Station	N/A	N/A	N/A	N/A	N/A		N/A	N/A						N/A		N/A	
#6 Oil North Bulk Tank North Unloading Station	N/A	N/A	N/A	N/A	N/A		N/A	N/A						N/A		N/A	
A-01-UO Used Oil Tank #1			N/A	N/A	N/A		N/A	N/A						N/A		N/A	
A-02-UO Used Oil Tank #2			N/A	N/A	N/A		N/A	N/A						N/A		N/A	
A-02-2 #2 Fuel Oil Bulk Tank			N/A				N/A									N/A	
South #2 Oil Bulk Tank Unloading Station	N/A	N/A	N/A				N/A							N/A		N/A	
North #2 Oil Bulk Tank Unloading Station	N/A	N/A	N/A				N/A							N/A		N/A	
A-05-2 GT1 Convault Tank [1]			N/A		N/A												
A-06-2 GT2 Convault Tank [1]			N/A		N/A												
A-10-2 GT3 Convault Tank [1]			N/A		N/A												
CT #3 Waste Antifreeze Drum		N/A	N/A				N/A			N/A	N/A			N/A	N/A	N/A	

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If unsatisfactory, mark "unsat" and fill out a Maintenance Request to have the condition corrected.
Retain one copy for the Department and forward the original to Nicole Odom, Engineering Tech..

NOTES:

1 These are steel tanks encased in concrete. They are equipped with internal leak detection.

2 The North and South No. 6 Fuel Oil Bulk Tanks share a cathodic protection system. System should continue to be tested monthly by electric shop per routine work order.

3 If there is product in overfill sump, tank must be pumped out immediately.

4 For the No. 2 Fuel Oil Bulk Tank, red light at fill station will be on when sump is full. The switch to start the pump is located at control panel.

5 Piping trenches for No. 2 & No. 6 Fuel Oil should be checked for product/rainfall. Test activation of automatic pump by lifting up float at west end of trench.

6 Gas turbine convault tanks No. 1 & No. 2 are equipped with a tube that must be manually gauged ("dip-sticked") for presence of product. Gas turbine convault tank No. 3 is equipped with a "pop-up" visual gauge that will be visible if product is present.

Deerhaven Generating Station

Coal/Ash Monthly Tank Inspection Report

Name of Inspector:_____ **Date of Inspection:** _____

EPA Tank Identification	Tank Wall and Coating	Tank Support Structure	Containment Walls and Floors	General Area	Piping and Valving [2]	Piping Support Structure	Unloading Area	Labels and Warning Signs	Emergency Equipment	High Level Alarm [3]	Internal Leak Detection [4]	Gauges	Comments
A-03-LO Vehicle Lube Oil Tank										N/A	N/A		
A-09-2 Coal/Ash Vehicle Diesel Tank [1]													

Instructions: This form will be completed monthly in conjunction with the fire report. If the condition is acceptable, place a check mark in the appropriate column.
If unsatisfactory, mark "unsat" and fill out a Maintenance Request to have the condition corrected.
Retain one copy for the Department and forward the original to Nicole Odom, Engineering Tech..

FOOTNOTES:

1 This is a double-walled steel tank with internal leak detection.

2 Air pressure & tank discharge valve on **lube** oil tank should be in the "closed" position when not in use. Discharge hose should be in holder on top of tank.

3 High alarm test button is under the gray metal control box.

4 Internal leak detection gauge is located on south side of tank. Pop-up gauge will be visible if there is product internally.

revised3-2007

Format only revisions 2017

Changed table heading format to perpendicular on the page for easier reading.

Changed Notes to Footnotes and formated one per line

Added this revision section

Deerhaven Generating Station **Name of Inspector:** *REV: 3-14-07*

Laboratory Monthly Tank Inspection Report **Date of Inspection:**

EPA Tank Identification	Tank wall and coating	Support structure	Containment walls and floor	Containment Drain Valve locked?	General Area Cleanliness	Overfill sump	Containment Liquid level	Piping and Valving	Piping Support Structure	Unloading Area	Labels and warning Signs	High Level Alarm	Gauges	Internal Leak Detection	*Comments*
A-03-A Unit 2 CT Sulfuric Acid Tk															
A-04-A Demineralizer(bulk) Sulfuric Acid Tank															
A-02-SH Unit 2 CT Hypochlorite Tank				no lock											
A-08-A Demineralizer Sulfuric Acid Tk(500gal)															
A-01-C Demineralizer Caustic Tank															
A-01-DEHA Unit 1 DEHA/Morpholine Tank															
A-02-DEHA Unit 2 DEHA Tank															
A-01-P9 Unit 1 Phosphate Tank 9th Floor															
A-02-P10 Unit 2 Phosphate Tank 10th Floor															
Unit 2 Hydroxide Tank 10th Floor															
A-02-CYC Unit 2 Cyclohexylamine/Morph Tank															
A-01-SH Unit 1/Aux CT Hypochlorite Tank				no lock											
A-01-B Unit 1/Aux CT Organic Phosphate Tank				no lock											
A-02-HEDP Unit 2 CT Organic Phosphate Tank															
A-01-T Unit 2 CT TTA Tank															
Elevated Tank Hypochlorite Tank				no lock											
Drums															
DEHA Unit1															
Morpholine-Unit1															
DEHA Unit2															
Cyclohexylamine/Morpholine blend Unit 2															

note: crosshatched areas are not applicable

note 1: No emergency equipment assigned to any tank or drum, general plant emergency equipment is available at various locations

Deerhaven Generating Station

Process Plant Monthly Tank Inspection Report

Name of Inspector:_____

Date of Inspection:_____

EPA Tank Identification	Tank Wall and Coating	Tank Support Structure	Containment Walls and Floors	Containment Drain Valve Locked	General Area	Containment Liquid Level	Piping and Valving	Piping Support Structure	Unloading Area	Labels and Warning Signs	Emergency Equipment	Gauges	Comments
A-07-A Process Plant Sulfuric Acid Tank													
A-01-PY Process Plant Polymer Tank		N/A	N/A	N/A		N/A		N/A					
Lube Oil Storage Drums		N/A	N/A	N/A			N/A	N/A	N/A			N/A	
		N/A	N/A	N/A			N/A	N/A	N/A			N/A	
		N/A	N/A	N/A			N/A	N/A	N/A			N/A	
		N/A	N/A	N/A			N/A	N/A	N/A			N/A	
		N/A	N/A	N/A			N/A	N/A	N/A			N/A	
		N/A	N/A	N/A			N/A	N/A	N/A			N/A	
		N/A	N/A	N/A			N/A	N/A	N/A			N/A	
		N/A	N/A	N/A			N/A	N/A	N/A			N/A	

Instructions: This form will be completed monthly in conjunction with the fire report. If the condition is acceptable, place a check mark in the appropriate column.
If unsatisfactory, mark "unsat" and explain why. Fill out a Maintenance Request to have the condition corrected.
Retain one copy for the Department and forward the original to Nicole Odom, Engineering Tech..

Deerhaven Generating Station Operations Annual Tank Inspection Report

Name of Inspector:_____ **Date of Inspection:**_____

EPA Tank Identification	Tank Wall and Coating	Tank Support Structure	Containment Walls and Floors	General Area	Overfill Sump [2]	Containment Liquid Level	Piping and Valving	Piping Support Structure	Unloading Area	Labels and Warning Signs	Emergency Equipment	High Level Alarm	Gauges P (pass) / F (fail)	Internal Leak Detection [3]	Comments
Unit #1 Emergency Diesel Day Tank			N/A		N/A										
Unit #2 Emergency Diesel Day Tank			N/A		N/A										
A-05-2 GT1 Convault Tank [1]															
A-06-2 GT2 Convault Tank [1]															
A-10-2 GT3 Convault Tank [1]															

Instructions: This form will be completed annually. If the condition is acceptable, place a check mark in the appropriate column.
NOTE: Gauge column requires a P (Pass) or F (Fail) instead of a check mark.
If unsatisfactory, mark "unsat", write cause in the Comments column, and create a Work Request in EAM to have the condition corrected.
Retain one copy for the Department and forward the original to the Operations Assistant.

FOOTNOTES:
1 These are steel tanks encased in concrete. They are equipped with internal leak detection.
2 If there is product in overfill sump, tank must be pumped out immediately.
3 Gas turbine convault tanks No. 1 & No. 2 are equipped with a tube that must be manually gauged ("dip-sticked") for presence of product. Gas turbine convault tank No. 3 is equipped with a "pop-up" visual gauge that will be visible if product is present.

NOTE: **Cathodic Protection** and **Containment Drain Valve Locked** do not apply to these tanks and are therefore not included on this report.

W:\U0330\EAM\EAM ATTACHMENTS\TANK INSPECTIONS
REV: 6-21-17