

Memorandum



September 9, 2024

Mr. Brad Young, P.E.
East Kentucky Power Cooperative
4775 Lexington Road
Winchester, KY 40391

Re: EKPC New Generation Project Feasibility Report and Alternatives Analyses

Dear Mr. Young:

East Kentucky Power Cooperative (EKPC) requested Burns & McDonnell Engineering Co. (BMcD) review the feasibility of adding several new generation facilities across multiple potential site locations in Kentucky. As part of this effort, BMcD held multiple scope discussion meetings to review equipment assumptions, facility sizing and technology considerations, site locations and layout concerns, and developed preliminary scopes for each generation option. BMcD then developed short-form specifications for the major equipment in several technologies and solicited budgetary bids from these technology providers to help develop approximate project scope, schedules, and cost estimates. Additionally, BMcD requested sufficient technical data from the major equipment suppliers to support EKPC with initiating PJM/Interconnection Request, Public Service Commission application, and other upfront activities as defined by the schedule. A brief description of each generation facility type and what was reviewed is described below.

New Generation Facility Options

As part of the project feasibility report (PFR), EKPC requested BMcD review the following new generation options at various potential project sites:

- Reciprocating Internal Combustion Engines (RICE)
- Combined Cycle Gas Turbine (CCGT) Generation Facilities
- Simple Cycle Gas Turbine (SCGT) Generation Facilities

BMcD also evaluated other generation options which are summarized in separate reports. These include coal-to-gas conversion at multiple project sites, nuclear generation, synchronous condenser, and solar generation.

Multiple site locations were considered for each option based on projected future generation demand, relative proximity to existing transmission lines and natural gas pipelines, as well as minimizing land acquisition and additional permitting from greenfield sites. A brief explanation of each option is described below.

RICE Facility Options

EKPC reviewed multiple potential greenfield site locations in central Kentucky, primarily located around the Campbellsville and Liberty areas. Following a Siting Study BMcD identified which potential locations would minimize project capital cost by co-locating close to both the existing high voltage

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transmission lines and natural gas pipelines in the area. For the more favorable site locations, BMcD developed preliminary general arrangements (GA's) and initiated a feasibility analysis while in parallel EKPC reviewed existing land parcel ownership resell opportunities. In BMcD's feasibility analysis, each parcel was reviewed for sufficient land area for the new RICE facility, water availability, noise sensitivity, adjacent property owner's residence or community gathering locations (e.g. places of worship), voltage support advantages, wetlands and other potential regulatory hurdles. Although some parcels were more favorable than others, most existing landowners were not open to resell which left three potential parcels close to Liberty (Liberty 3, Liberty 4, Liberty 5) and one potential parcel located close to Campbellsville (Campbellsville 6). Of these options, both the Liberty 3 and Campbellsville 6 properties were deemed technically acceptable due to the closer proximity of gas pipelines and the existing 161 kV transmission line.

On the Campbellsville 6 site, due to the way natural gas pipelines cross the property, insufficient suitable land space is available without either removing trees (which will impact environmental permitting) or locating the facility close to adjacent dwellings (at the northwest corner of the parcel) that increases the likelihood of noise concerns. Therefore, it was determined that rerouting one of the existing pipelines would be required. BMcD engaged the gas pipeline owner/operator to review the potential for rerouting one of the existing pipelines and to determine pipeline easement requirements. The Campbellsville 6 overall site plan illustrates the final agreed-to facility location and associated pipeline easements.

Minimal transmission work would be needed for the Campbellsville 6 site. An existing EKPC 161 kV line is in close proximity to the site; therefore, a new substation would be built with short connections from that existing 161 kV line to the new substation. Additionally, power-flow analysis modeling this generation addition indicates that potential transmission-system network upgrades required would be relatively minor in scope and cost. The disadvantage of this site from a transmission perspective is that it is geographically further from the southern portion of EKPC's system, which requires more generation support than the Campbellsville area during high-load periods.

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A moderate level of transmission work would be needed for this site. An existing EKPC 161 kV line is in close proximity to the site; therefore, a new substation would be built with short connections from that existing 161 kV line to the new substation. Additionally, power-flow analysis modeling this generation addition indicates a small number of transmission-system network upgrades that could be required – most of these would be small scope projects. The most significant project required would be a rebuild of the existing 161 kV line from the new substation at the Liberty 3 site to the existing Liberty Junction

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substation (a distance of approximately 8 miles). The advantage of this site from a transmission perspective is that it is geographically in the southern portion of EKPC's system, and thereby can provide more support to the transmission system when needed during high-load periods.

EKPC desired a minimum of 214 MW of net new generation produced by this RICE facility. Existing RICE manufacturers include Wartsila, Caterpillar, GE/Jenbacher, MAN, and Hyundai Heavy Industries. To achieve the desired 214 MW with less machines, it was recommended to focus on 18 MW or larger engines for this feasibility effort. Of the manufacturers, only Wartsila and MAN produce 18 MW or larger engines. BMcD engaged with both manufacturers and provided a shortform technical specification to request sufficient technical data to initiate a PJM Interconnect application, as well as budgetary costs and lead times to further develop the project feasibility. BMcD used the vendor-supplied conceptual information (along with past project experience) to develop the PFR deliverables such as the site general arrangement, scope matrix (Appendix B), equipment list (Appendix D), one-line diagrams (Appendix E), performance and emissions estimates (Appendix G), project schedule (Appendix F) and cost estimate (Appendix H). Note that because RICE facilities do not require much water use, once it was confirmed a city supply would be available, a detailed water mass balance was determined to be unnecessary for this stage of the project.

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Using the preliminary GA and Site Plan and major equipment supplier budgetary cost estimates, BMcD used historical data to estimate the balance of plant (BOP) costs for the rest of the project. These capital costs were included with the other project costs and are included in Appendix H. Likewise, using the major equipment supplier's lead time along with past project historical durations, BMcD developed a preliminary Level 1 project schedule which is provided in Appendix F.

CCGT Generation Facility Options

Similar to the RICE facilities, EKPC reviewed several potential site locations for combined cycle generation plants, including their existing J.K. Smith (Smith) and John Sherman Cooper (Cooper) power stations as well as a few new greenfield locations in eastern Kentucky near and adjacent to the Ohio River (near Tygarts Creek). The Smith and Cooper sites both include a new 2x1 CCGT plant whereas the greenfield site in eastern Kentucky includes a 3x1 CCGT powerplant. The Cooper site would require a

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new gas pipeline to deliver natural gas for the new facility. The Smith site already has nine simple cycle units onsite with sufficient excess gas supply and would have the most free space and infrastructure for the new CCGT plant. However, based on economics and sufficiency of water supply, EKPC preferred to locate the CCGT plant at the Cooper facility. The Tygarts Creek area facility was seen as a potential third option behind the other two sites, but additional siting development would be required to further vet this location.

Because of EKPC's experience with F-Class combustion turbine generators (CTG), it was desirable to pursue and add new units to the existing fleet for interchangeability of spare parts and familiarity of design/operation of the combustion turbines. Additionally, EKPC decided against duct firing the new heat recovery steam generators (HRSG) as the expected generation load did not require this extra capacity and for concerns for PM_{2.5} National Ambient Air Quality Standards (NAAQS). Based on this direction, the new 2x1 CCGT facility would generate approximately 725 MW (net). Due to the lack of sufficient water availability, the Smith site would require an air-cooled condenser (ACC) whereas the Cooper site is located next to Cumberland Lake and could use a cooling tower and wet surface condenser for cooling. The use of a cooling tower at the Cooper facility was also beneficial due to the decrease in parasitic load of 8-14 MW as opposed to the use of an ACC. The Tygarts Creek location would also likely use wet cooling due to its proximity to the Ohio River. This can be further evaluated if EKPC decides to pursue this location in the future.

In parallel with determining the site location for this 2x1 CCGT facility, BMcD developed short-form technical specifications and issued bid packages to the major equipment suppliers. For F-Class CTG's, this includes Siemens and General Electric (GE). The HRSG's were bid out to Vogt, GE, and Nooter Eriksen. The steam turbine generator (STG) was bid to Siemens, GE, and Toshiba. Using the technical data provided, BMcD was able to approximate expected performance and emissions from each major equipment manufacturer as well as help initiate the PJM Interconnection application and air permit.

As with the RICE facilities, BMcD used the supplied vendor information to create Site Plans and GA's for the two major CTG vendors at several site locations as discussed below:

Smith: The Smith 2x1 CCGT would be located on the site of a previously uncompleted coal plant. This site location was ideal for providing adequate space for all major equipment and included supporting infrastructure for transmission and gas pipeline onsite. Since some foundation and underground utilities were previously installed for the unfinished coal plant, an allowance for demolition of these items was included in the cost estimate.

Significant transmission infrastructure is already in place at Smith. A new 345 kV substation would most likely be required with new transmission-line connections to the existing 345 kV substation. For transmission-system network upgrades, a new 138 kV line from JK Smith to the existing EKPC Fawkes substation in northern Madison County is expected to be needed (estimated line length of approximately 17 miles). Additionally, numerous upgrades of existing transmission lines in the area are expected to be needed based on preliminary power-flow studies. This location provides minimal incremental benefits to the transmission system. The site currently has nine (9) simple-cycle combustion turbines that are

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available to provide support to the transmission system in the region, so added generation at this location provides only marginal support beyond what already exists.

Tygarts Creek: This location was reviewed for a potential 3x1 CCGT facility in eastern Kentucky. Several greenfield parcels were reviewed for their close proximity to natural gas pipelines and existing transmission lines. A promising location was identified close to the Ohio River. However, EKPC indicated further development of this location is on hold.

A 765 kV transmission line owned by American Electric Power (“AEP”) is in close proximity to this site. The CCGT facility would be connected to this 765 kV line via a new substation in order to integrate the generation facility into PJM. Preliminary power-flow analysis has identified several potential upgrades that could be required on the AEP system due to the new generation interconnection to its 765 kV system. This location would provide no benefits to the EKPC transmission system from a generation-support standpoint. There would be no direct connection to the EKPC system, since the facility would connect only to the AEP 765 kV system as the means to integrate the facility into the PJM market. Therefore, EKPC would not realize any transmission benefits from the facility.

Cooper: This location was favorable since the site houses an existing coal plant and provides substantial existing infrastructure, water and transmission along a corridor that needs voltage support. However, finding sufficient land space for the 2x1 CCGT plant was a challenge. EKPC indicated they were considering moth-balling Unit 1 and retrofitting Unit 2 with a coal-to-gas conversion. With these existing units no longer using coal at some future date uncertain whether by EPA’s Greenhouse Gas Rule or Court Stay Motion, EKPC requested BMcD investigate using the land space of the existing coal pile for the new CCGT plant location. EKPC wanted a 10-day coal storage pile to remain for emergencies for Unit 2. To allow the existing smaller coal pile to remain in service, all coal handling support facilities (coal dumper, transfer conveyors, hoppers, etc.) must remain in service. Additionally, a coal pile pond would need to remain to collect coal pile surface runoff and settlement of coal fines prior to pumping to the existing wastewater treatment system as well as for holding excess storm water from the existing plant. Therefore, to best use the available space, it was determined a new smaller coal pond would be designed and located closer to the active storage pile next to Unit 2 so the rest of the coal pile footprint could be reused for the combined cycle facility.

Because Cooper is located in a geographic area with lots of karst formations, understanding subsurface details will be important for further design. Due to a lack of existing subsurface data underneath the active coal pile, it was assumed that a large amount of flowable fill would be required in addition to piling the major equipment and buildings. This allowance was included in the cost estimate. Future subsurface investigation in and around the coal pile will be important to better understand what potential deep foundations would be required.

Significant 161 kV and 69 kV transmission infrastructure currently exists at Cooper. A new 161 kV substation would most likely be required with associated establishment of transmission-line connections to the existing 161 kV substation. Regarding transmission-system network upgrades, a new 161 kV line from Cooper to the existing LG&E/KU Alcalde substation which is southeast of the city of Somerset, Kentucky is expected to be needed (estimated line length of approximately 7 miles). Additionally,

numerous upgrades of existing transmission lines and substation equipment in the area are expected to be needed based on preliminary power-flow studies. The significant advantage of this site from a transmission perspective is that it is geographically in a key area of the southern portion of EKPC's system, and thereby can provide substantial support to the transmission system when needed during high-load periods.

Using the preliminary GA's and Site Plans, and major equipment supplier budgetary cost estimates, BMcD then used historical information from similar projects to estimate the BOP costs for the rest of the project. These capital costs were included with the other project costs and are listed in Appendix H. Likewise, using the major equipment supplier's lead time along with past project historical durations, BMcD developed a preliminary Level 1 project schedule which is provided in Appendix F.

SCGT Generation Facility

EKPC requested BMcD review the feasibility of adding simple cycle gas turbines to several sites as opposed to a new combined cycle plant (Smith and Tygarts Creek locations). The Smith facility currently has nine simple cycle gas turbines and EKPC would potentially add three more in the open slots planned for Units 8, 11, and 12 as well as two in the location of the potential combined cycle (previous unfinished coal plant) for a total of five new simple cycle gas turbines. As the Tygarts Creek site location would be greenfield, three x 100% SCGT's were placed on one of the larger potential land plots. Expected output is between 232-262 MW net (each CTG) depending on which GT manufacturer is chosen. Therefore, new/additional capacity would be ~1,161-1,312 MW (net) at Smith (5x), and ~697-787 MW (gross) at Tygarts Creek (3x). Each potential SCGT facility would include a full CTG package (either Siemens SGT6-5000F or GE 7F.05) which would be dual-fuel rated for natural gas or ULSD, new/additional fuel gas dewpoint heaters and pressure regulation, ULSD No.2 fuel oil storage tanks, unloading and forwarding pumps and inline heaters, new/additional fire water pumps (electric and diesel), air-cooled heat exchangers (ACHE) sized for each unit, along with new/additional water treatment systems for the additional demineralized water requirement. Refer to Appendix D for a full list of all equipment included for each facility option.

The additional water requirements for the dual fuel-rated turbines would be sourced from the existing system (Smith), a new well, or directly off the Ohio River (Tygarts Creek). Additional investigations should be completed in the next phase of the design to confirm adequate water capacity and any water treatment requirements for each site. Refer to Appendix C for the Water Mass Balance (WMB) for each option and site.

As with other generation options, BMcD used the preliminary equipment sizing, layout, and spacing requirements from each manufacturer (including electrical and control room sizing requirements) to develop the overall site general arrangement. EKPC indicated they wanted a majority of the equipment located indoors to minimize potential freezing and cold weather concerns, so enclosures were added around the CTG's and included in the project cost. Similar to the RICE and CCGT options, 72-hours of ULSD No.2 fuel oil storage was provided for emergency operation of the CTG's without natural gas. Using the vendor supplied information along with past project historical knowledge, BMcD developed preliminary facility one-line diagrams, evaluated expected performance and emissions estimates, Level 1 project schedules and conceptual cost estimates. Refer to the Appendices for details for each site.

Support Infrastructure

Several of the site locations would require new supporting infrastructure offsite for the new generation facilities including new supply natural gas pipelines, new high voltage transmission lines and interconnections, and new water sourcing. A brief discussion on each of these is included below.

New Gas Pipeline

To potentially reuse existing EKPC facilities (Spurlock and Cooper), EKPC wanted to investigate the feasibility of new gas pipeline for conversions to gas generation. BMcD engaged the owner/operator of nearby gas pipelines to review feasibility of a new supply gas pipeline as well as potential routes, costs, and lead times. Preliminary pipeline routes to each site along with high level costs and schedule were developed and provided to EKPC.

New High Voltage Transmission

Similar to the new gas pipelines, new transmission lines would need to be sited, permitted, and schedule and costs developed for supplying the new generation power to the PJM grid. However, a more detailed analysis of the options and routing is discussed in a separate report and these costs were excluded from the supplied capital costs for these projects at this time.

New Water Supply

Several of the new generation locations would be greenfield sites and sourcing sufficient makeup water was a concern. Following development of preliminary WMB's for the options, BMcD performed desktop evaluations of existing water supply sources to confirm if sufficient water is available. Several of the sites indicated low capacity from nearby groundwater wells. However, for RICE projects, the water supply requirement was relatively low and local city/county potable water supply could achieve sufficient makeup capacity. For locations where larger supply would be required, equipment selections were made to minimize the makeup capacity requirements, namely the use of ACC's and ACHE's. For the sites located close to existing water supplies (i.e. Cooper, Tygarts Creek), it was assumed the existing Cumberland Lake or Ohio River could be sourced and permitted for makeup supply. BMcD recommends a more detailed analysis of each site's water supply and water quality requirements in the next phase of the project to confirm these assumptions.

Application Support

In addition to evaluating each new generation option, potential locations, and developing feasibility costs, BMcD supported EKPC with developing front end interconnection and permitting application process.

PJM/Interconnection Request

For the options EKPC indicated they were most likely to proceed with (RICE at the Liberty 3 location, CCGT at the Cooper power station), BMcD requested the necessary PJM Interconnection data from the major generator equipment suppliers (RICE, CTG, STG). With this data, BMcD supported EKPC with

filling out the technical portion of the PJM interconnection request to get the application process started. BMcD plans to continue to support EKPC in this process as needed.

Air Permit Application

BMcD also requested the necessary performance and emissions data from the major equipment suppliers to start the Air Permitting process. Using the preliminary GA's, BMcD identified stack locations, emission sources and locations, adjacent building heights, and supported EKPC's efforts to initiate the permitting process for the selected project locations. BMcD developed GA's and emissions data for the major equipment suppliers to support EKPC with each site's Air Permit application. BMcD will continue to support EKPC throughout the permitting process over the next phases of the project development.

Schedule

Level 1 project schedules for the selected new generation options were developed. These include approximate durations for project development studies, permitting (RUS NEPA EA application, Air Permit application, PSC CPCN application), PJM Interconnection application and review cycles, front-end procurements of major equipment (RICE engines, GSU's, CTG's, HRSG's, STG, ACC), detailed design and BOP procurements, construction and commissioning durations. These durations are based on recent project experience, EKPC feedback, and major equipment supplier stated lead times. It is expected that these schedules will be further developed and fine-tuned in subsequent project development.

Capital Cost Estimates

The information provided in this memo report is preliminary in nature and is intended to provide AACE Class 4 feasibility-level costs for EKPC to determine whether further evaluation is desired. Should EKPC elect to pursue one or several of these options for further evaluation, BMcD recommends a bottoms-up cost estimate based on a more detailed general arrangement, scope assumptions matrix, development of key engineering documents, and further refinement of pricing from equipment manufacturers.

The cost estimates are based on a multi-prime contract approach and were developed based on the general arrangement sketches in Appendix A, project scope assumptions listed in Appendix B, and conceptual design considerations included in Appendices C, D, and E. Major equipment costs were based on budgetary quotes from suppliers. BOP costs were scaled from similar recent projects of similar size and type. Indirect costs (construction management, engineering, start-up, and commercial) are percentages based on the direct cost and were discussed with EKPC in advance. Taxes, land acquisition, and fuel were excluded from this evaluation. Additionally, capital costs for new transmission lines and supply gas pipelines were also excluded at this time. A \$4,000,000 demolition allowance was included for the Smith site to cover expected subgrade demolition of unfinished coal plant foundations. An additional 2% of Total Project Costs for Owner's project related builders risk insurance was included. Project contingency was set to 15% of BOP with an additional 3% of major equipment direct and indirect project costs based on perceived unknowns and risks for each Option. Project escalation was assumed to be 4% per year of direct and indirect costs based on a COD of 2029 for the RICE project and 2033 for the CCGT and SCGT projects. Operation and Maintenance (O&M) costs were not evaluated in this study. Refer to Appendix H for more information on each option's cost estimate.

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There is current market volatility for labor and supply of equipment and materials. Labor costs for the area were based upon Burns & McDonnell's experience in this location of the country. Supply of major equipment and materials continues to be very volatile in the market and could affect the overall project schedule and budget.

Estimates, schedules, forecasts, and projections prepared by BMcD relating to loads, interest rates, and other financial analysis parameters, construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are opinions based on BMcD's experience, qualifications, and judgement as a professional consultant. Since BMcD has no control over weather, cost and availability of labor, cost and availability of material and equipment, cost of fuel or other utilities, labor productivity, construction contractors' procedures and methods, unavoidable delays, construction contractors' methods of determining prices, economic conditions, government regulations and laws (including the interpretation thereof), competitive bidding or market conditions, and other factors affecting such estimates or projections, BMcD does not guarantee that actual rates, costs, quantities, performance, schedules, will not vary from estimates and projections prepared by BMcD.

Next Steps

Future project scoping studies will be necessary for project options that are of interest to EKPC. These studies would include refinement of general arrangements, a more in-depth review of plant failure modes, redundancy, life safety considerations, potential future expansions, more development of plant performance and expected emissions, project schedules, and development of front-end engineering deliverables. These include site design conditions and Code basis, permit matrix, project division of responsibility (DOR) matrix, equipment list, process flow diagram, heat & material balance, P&IDs, WMB, site arrangements, one-line diagrams, control system architecture, geotechnical analysis, system descriptions, water and wastewater analysis, and a further refined cost estimate based on these deliverables.

Summary & Recommendations

This memo report summarizes the new generation options reviewed and evaluated by BMcD and EKPC during the project feasibility study. This study was intended to provide EKPC with a greater understanding of each project's viability should they decide to pursue them further. Where this report focuses on the fossil fuel generation production of RICE, simple, and combined cycle facilities, additional studies and reports detail the other new generation options that EKPC is reviewing.

Of the RICE property options, several potential sites were promising, however Liberty 3 provides the environmentally preferable alternative including less impacts to adjacent properties and improved transmission support to EKPC's existing system. For CCGT facilities, both the existing Smith and Cooper Stations would provide favorable locations as the environmentally preferable alternatives to green field sites pending infrastructure upgrades. Additionally, the Smith station would also be able to support new SCGT generation. The Tygarts Creek location is promising but would need further siting development to ensure it remains a feasible location. BMcD will support EKPC with any additional generation or site location analysis and next step scoping studies to continue to progress these new generation options.

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Sincerely,

Zach Bahr, P.E.
Engineering Manager

cc: Nick Bauer, Project Manager
Von Steiner, Project Manager

Appendix A – Conceptual General Arrangements
Appendix B – Scope Assumption Matrices
Appendix C – Water Mass Balances
Appendix D – Equipment Lists
Appendix E – One-Line Diagrams
Appendix F – Preliminary Level 1 Schedules
Appendix G – Performance and Emission Estimates
Appendix H – Generation Option Capital Cost Estimates

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EKPC desired a minimum of 214 MW of net new generation produced by this RICE facility. Existing RICE manufacturers include Wartsila, Caterpillar, GE/Jenbacher, MAN, and Hyundai Heavy Industries. To achieve the desired 214 MW with less machines, it was recommended to focus on 18 MW or larger engines for this feasibility effort. Of the manufacturers, only Wartsila and MAN produce 18 MW or larger engines. BMcD engaged with both manufacturers and provided a shortform technical specification to request sufficient technical data to initiate a PJM Interconnect application, as well as budgetary costs and lead times to further develop the project feasibility. BMcD used the vendor-supplied conceptual information (along with past project experience) to develop the PFR deliverables such as the site general arrangement, scope matrix (Appendix B), equipment list (Appendix D), one-line diagrams (Appendix E), performance and emissions estimates (Appendix G), project schedule (Appendix F) and cost estimate (Appendix H). Note that because RICE facilities do not require much water use, once it was confirmed a city supply would be available, a detailed water mass balance was determined to be unnecessary for this stage of the project.

BMcD used the preliminary equipment sizing, layout, and spacing requirements from each manufacturer (including electrical and control room sizing requirements) to develop the overall site general arrangement. EKPC indicated they wanted a majority of the equipment located indoors to minimize potential freezing and cold weather concerns. They also determined that the facility needed to be dual fuel capable. Each engine shall run on either natural gas or ultra-low sulfur diesel (ULSD) No.2 fuel oil to provide flexibility and redundancy should the primary fuel (natural gas) supply get curtailed by the gas company. In addition to the natural gas supply and conditioning equipment, 72 hours-worth of ULSD No.2 fuel oil will be stored in two tanks located onsite near the engine hall. The facility will be provided with administrative rooms and a separate warehouse. Because Liberty 3 is a greenfield site, the preliminary layout includes a new guard shack, property fencing, storm water retention pond, both permanent and temporary construction parking, and equipment laydown spaces. It was determined that the new meter and regulation (M&R) station would be placed near the edge of the site to provide unencumbered access by the pipeline company.

Using the preliminary GA and Site Plan and major equipment supplier budgetary cost estimates, BMcD used historical data to estimate the balance of plant (BOP) costs for the rest of the project. These capital costs were included with the other project costs and are included in Appendix H. Likewise, using the major equipment supplier's lead time along with past project historical durations, BMcD developed a preliminary Level 1 project schedule which is provided in Appendix F.

CCGT Generation Facility Options

Similar to the RICE facilities, EKPC reviewed several potential site locations for combined cycle generation plants, including their existing J.K. Smith (Smith) and John Sherman Cooper (Cooper) power stations as well as a few new greenfield locations in eastern Kentucky near and adjacent to the Ohio River (near Tygarts Creek). The Smith and Cooper sites both include a new 2x1 CCGT plant whereas the greenfield site in eastern Kentucky includes a 3x1 CCGT powerplant. The Cooper site would require a

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new gas pipeline to deliver natural gas for the new facility. The Smith site already has nine simple cycle units onsite with sufficient excess gas supply and would have the most free space and infrastructure for the new CCGT plant. However, based on economics and sufficiency of water supply, EKPC preferred to locate the CCGT plant at the Cooper facility. The Tygarts Creek area facility was seen as a potential third option behind the other two sites, but additional siting development would be required to further vet this location.

Because of EKPC's experience with F-Class combustion turbine generators (CTG), it was desirable to pursue and add new units to the existing fleet for interchangeability of spare parts and familiarity of design/operation of the combustion turbines. Additionally, EKPC decided against duct firing the new heat recovery steam generators (HRSG) as the expected generation load did not require this extra capacity and for concerns for PM_{2.5} National Ambient Air Quality Standards (NAAQS). Based on this direction, the new 2x1 CCGT facility would generate approximately 725 MW (net). Due to the lack of sufficient water availability, the Smith site would require an air-cooled condenser (ACC) whereas the Cooper site is located next to Cumberland Lake and could use a cooling tower and wet surface condenser for cooling. The use of a cooling tower at the Cooper facility was also beneficial due to the decrease in parasitic load of 8-14 MW as opposed to the use of an ACC. The Tygarts Creek location would also likely use wet cooling due to its proximity to the Ohio River. This can be further evaluated if EKPC decides to pursue this location in the future.

In parallel with determining the site location for this 2x1 CCGT facility, BMcD developed short-form technical specifications and issued bid packages to the major equipment suppliers. For F-Class CTG's, this includes Siemens and General Electric (GE). The HRSG's were bid out to Vogt, GE, and Nooter Eriksen. The steam turbine generator (STG) was bid to Siemens, GE, and Toshiba. Using the technical data provided, BMcD was able to approximate expected performance and emissions from each major equipment manufacturer as well as help initiate the PJM Interconnection application and air permit.

As with the RICE facilities, BMcD used the supplied vendor information to create Site Plans and GA's for the two major CTG vendors at several site locations as discussed below:

Smith: The Smith 2x1 CCGT would be located on the site of a previously uncompleted coal plant. This site location was ideal for providing adequate space for all major equipment and included supporting infrastructure for transmission and gas pipeline onsite. Since some foundation and underground utilities were previously installed for the unfinished coal plant, an allowance for demolition of these items was included in the cost estimate.

Significant transmission infrastructure is already in place at Smith. A new 345 kV substation would most likely be required with new transmission-line connections to the existing 345 kV substation. For transmission-system network upgrades, a new 138 kV line from JK Smith to the existing EKPC Fawkes substation in northern Madison County is expected to be needed (estimated line length of approximately 17 miles). Additionally, numerous upgrades of existing transmission lines in the area are expected to be needed based on preliminary power-flow studies. This location provides minimal incremental benefits to the transmission system. The site currently has nine (9) simple-cycle combustion turbines that are

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available to provide support to the transmission system in the region, so added generation at this location provides only marginal support beyond what already exists.

Tygarts Creek: This location was reviewed for a potential 3x1 CCGT facility in eastern Kentucky. Several greenfield parcels were reviewed for their close proximity to natural gas pipelines and existing transmission lines. A promising location was identified close to the Ohio River. However, EKPC indicated further development of this location is on hold.

A 765 kV transmission line owned by American Electric Power (“AEP”) is in close proximity to this site. The CCGT facility would be connected to this 765 kV line via a new substation in order to integrate the generation facility into PJM. Preliminary power-flow analysis has identified several potential upgrades that could be required on the AEP system due to the new generation interconnection to its 765 kV system. This location would provide no benefits to the EKPC transmission system from a generation-support standpoint. There would be no direct connection to the EKPC system, since the facility would connect only to the AEP 765 kV system as the means to integrate the facility into the PJM market. Therefore, EKPC would not realize any transmission benefits from the facility.

Cooper: This location was favorable since the site houses an existing coal plant and provides substantial existing infrastructure, water and transmission along a corridor that needs voltage support. However, finding sufficient land space for the 2x1 CCGT plant was a challenge. EKPC indicated they were considering moth-balling Unit 1 and retrofitting Unit 2 with a coal-to-gas conversion. With these existing units no longer using coal at some future date uncertain whether by EPA’s Greenhouse Gas Rule or Court Stay Motion, EKPC requested BMcD investigate using the land space of the existing coal pile for the new CCGT plant location. EKPC wanted a 10-day coal storage pile to remain for emergencies for Unit 2. To allow the existing smaller coal pile to remain in service, all coal handling support facilities (coal dumper, transfer conveyors, hoppers, etc.) must remain in service. Additionally, a coal pile pond would need to remain to collect coal pile surface runoff and settlement of coal fines prior to pumping to the existing wastewater treatment system as well as for holding excess storm water from the existing plant. Therefore, to best use the available space, it was determined a new smaller coal pond would be designed and located closer to the active storage pile next to Unit 2 so the rest of the coal pile footprint could be reused for the combined cycle facility.

Because Cooper is located in a geographic area with lots of karst formations, understanding subsurface details will be important for further design. Due to a lack of existing subsurface data underneath the active coal pile, it was assumed that a large amount of flowable fill would be required in addition to piling the major equipment and buildings. This allowance was included in the cost estimate. Future subsurface investigation in and around the coal pile will be important to better understand what potential deep foundations would be required.

Significant 161 kV and 69 kV transmission infrastructure currently exists at Cooper. A new 161 kV substation would most likely be required with associated establishment of transmission-line connections to the existing 161 kV substation. Regarding transmission-system network upgrades, a new 161 kV line from Cooper to the existing LG&E/KU Alcalde substation which is southeast of the city of Somerset, Kentucky is expected to be needed (estimated line length of approximately 7 miles). Additionally,

numerous upgrades of existing transmission lines and substation equipment in the area are expected to be needed based on preliminary power-flow studies. The significant advantage of this site from a transmission perspective is that it is geographically in a key area of the southern portion of EKPC's system, and thereby can provide substantial support to the transmission system when needed during high-load periods.

Using the preliminary GA's and Site Plans, and major equipment supplier budgetary cost estimates, BMcD then used historical information from similar projects to estimate the BOP costs for the rest of the project. These capital costs were included with the other project costs and are listed in Appendix H. Likewise, using the major equipment supplier's lead time along with past project historical durations, BMcD developed a preliminary Level 1 project schedule which is provided in Appendix F.

SCGT Generation Facility

EKPC requested BMcD review the feasibility of adding simple cycle gas turbines to several sites as opposed to a new combined cycle plant (Smith and Tygarts Creek locations). The Smith facility currently has nine simple cycle gas turbines and EKPC would potentially add three more in the open slots planned for Units 8, 11, and 12 as well as two in the location of the potential combined cycle (previous unfinished coal plant) for a total of five new simple cycle gas turbines. As the Tygarts Creek site location would be greenfield, three x 100% SCGT's were placed on one of the larger potential land plots. Expected output is between 232-262 MW net (each CTG) depending on which GT manufacturer is chosen. Therefore, new/additional capacity would be ~1,161-1,312 MW (net) at Smith (5x), and ~697-787 MW (gross) at Tygarts Creek (3x). Each potential SCGT facility would include a full CTG package (either Siemens SGT6-5000F or GE 7F.05) which would be dual-fuel rated for natural gas or ULSD, new/additional fuel gas dewpoint heaters and pressure regulation, ULSD No.2 fuel oil storage tanks, unloading and forwarding pumps and inline heaters, new/additional fire water pumps (electric and diesel), air-cooled heat exchangers (ACHE) sized for each unit, along with new/additional water treatment systems for the additional demineralized water requirement. Refer to Appendix D for a full list of all equipment included for each facility option.

The additional water requirements for the dual fuel-rated turbines would be sourced from the existing system (Smith), a new well, or directly off the Ohio River (Tygarts Creek). Additional investigations should be completed in the next phase of the design to confirm adequate water capacity and any water treatment requirements for each site. Refer to Appendix C for the Water Mass Balance (WMB) for each option and site.

As with other generation options, BMcD used the preliminary equipment sizing, layout, and spacing requirements from each manufacturer (including electrical and control room sizing requirements) to develop the overall site general arrangement. EKPC indicated they wanted a majority of the equipment located indoors to minimize potential freezing and cold weather concerns, so enclosures were added around the CTG's and included in the project cost. Similar to the RICE and CCGT options, 72-hours of ULSD No.2 fuel oil storage was provided for emergency operation of the CTG's without natural gas. Using the vendor supplied information along with past project historical knowledge, BMcD developed preliminary facility one-line diagrams, evaluated expected performance and emissions estimates, Level 1 project schedules and conceptual cost estimates. Refer to the Appendices for details for each site.

Support Infrastructure

Several of the site locations would require new supporting infrastructure offsite for the new generation facilities including new supply natural gas pipelines, new high voltage transmission lines and interconnections, and new water sourcing. A brief discussion on each of these is included below.

New Gas Pipeline

To potentially reuse existing EKPC facilities (Spurlock and Cooper), EKPC wanted to investigate the feasibility of new gas pipeline for conversions to gas generation. BMcD engaged the owner/operator of nearby gas pipelines to review feasibility of a new supply gas pipeline as well as potential routes, costs, and lead times. Preliminary pipeline routes to each site along with high level costs and schedule were developed and provided to EKPC.

New High Voltage Transmission

Similar to the new gas pipelines, new transmission lines would need to be sited, permitted, and schedule and costs developed for supplying the new generation power to the PJM grid. However, a more detailed analysis of the options and routing is discussed in a separate report and these costs were excluded from the supplied capital costs for these projects at this time.

New Water Supply

Several of the new generation locations would be greenfield sites and sourcing sufficient makeup water was a concern. Following development of preliminary WMB's for the options, BMcD performed desktop evaluations of existing water supply sources to confirm if sufficient water is available. Several of the sites indicated low capacity from nearby groundwater wells. However, for RICE projects, the water supply requirement was relatively low and local city/county potable water supply could achieve sufficient makeup capacity. For locations where larger supply would be required, equipment selections were made to minimize the makeup capacity requirements, namely the use of ACC's and ACHE's. For the sites located close to existing water supplies (i.e. Cooper, Tygarts Creek), it was assumed the existing Cumberland Lake or Ohio River could be sourced and permitted for makeup supply. BMcD recommends a more detailed analysis of each site's water supply and water quality requirements in the next phase of the project to confirm these assumptions.

Application Support

In addition to evaluating each new generation option, potential locations, and developing feasibility costs, BMcD supported EKPC with developing front end interconnection and permitting application process.

PJM/Interconnection Request

For the options EKPC indicated they were most likely to proceed with (RICE at the Liberty 3 location, CCGT at the Cooper power station), BMcD requested the necessary PJM Interconnection data from the major generator equipment suppliers (RICE, CTG, STG). With this data, BMcD supported EKPC with

filling out the technical portion of the PJM interconnection request to get the application process started. BMcD plans to continue to support EKPC in this process as needed.

Air Permit Application

BMcD also requested the necessary performance and emissions data from the major equipment suppliers to start the Air Permitting process. Using the preliminary GA's, BMcD identified stack locations, emission sources and locations, adjacent building heights, and supported EKPC's efforts to initiate the permitting process for the selected project locations. BMcD developed GA's and emissions data for the major equipment suppliers to support EKPC with each site's Air Permit application. BMcD will continue to support EKPC throughout the permitting process over the next phases of the project development.

Schedule

Level 1 project schedules for the selected new generation options were developed. These include approximate durations for project development studies, permitting (RUS NEPA EA application, Air Permit application, PSC CPCN application), PJM Interconnection application and review cycles, front-end procurements of major equipment (RICE engines, GSU's, CTG's, HRSG's, STG, ACC), detailed design and BOP procurements, construction and commissioning durations. These durations are based on recent project experience, EKPC feedback, and major equipment supplier stated lead times. It is expected that these schedules will be further developed and fine-tuned in subsequent project development.

Capital Cost Estimates

The information provided in this memo report is preliminary in nature and is intended to provide AACE Class 4 feasibility-level costs for EKPC to determine whether further evaluation is desired. Should EKPC elect to pursue one or several of these options for further evaluation, BMcD recommends a bottoms-up cost estimate based on a more detailed general arrangement, scope assumptions matrix, development of key engineering documents, and further refinement of pricing from equipment manufacturers.

The cost estimates are based on a multi-prime contract approach and were developed based on the general arrangement sketches in Appendix A, project scope assumptions listed in Appendix B, and conceptual design considerations included in Appendices C, D, and E. Major equipment costs were based on budgetary quotes from suppliers. BOP costs were scaled from similar recent projects of similar size and type. Indirect costs (construction management, engineering, start-up, and commercial) are percentages based on the direct cost and were discussed with EKPC in advance. Taxes, land acquisition, and fuel were excluded from this evaluation. Additionally, capital costs for new transmission lines and supply gas pipelines were also excluded at this time. A \$4,000,000 demolition allowance was included for the Smith site to cover expected subgrade demolition of unfinished coal plant foundations. An additional 2% of Total Project Costs for Owner's project related builders risk insurance was included. Project contingency was set to 15% of BOP with an additional 3% of major equipment direct and indirect project costs based on perceived unknowns and risks for each Option. Project escalation was assumed to be 4% per year of direct and indirect costs based on a COD of 2029 for the RICE project and 2033 for the CCGT and SCGT projects. Operation and Maintenance (O&M) costs were not evaluated in this study. Refer to Appendix H for more information on each option's cost estimate.

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There is current market volatility for labor and supply of equipment and materials. Labor costs for the area were based upon Burns & McDonnell's experience in this location of the country. Supply of major equipment and materials continues to be very volatile in the market and could affect the overall project schedule and budget.

Estimates, schedules, forecasts, and projections prepared by BMcD relating to loads, interest rates, and other financial analysis parameters, construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are opinions based on BMcD's experience, qualifications, and judgement as a professional consultant. Since BMcD has no control over weather, cost and availability of labor, cost and availability of material and equipment, cost of fuel or other utilities, labor productivity, construction contractors' procedures and methods, unavoidable delays, construction contractors' methods of determining prices, economic conditions, government regulations and laws (including the interpretation thereof), competitive bidding or market conditions, and other factors affecting such estimates or projections, BMcD does not guarantee that actual rates, costs, quantities, performance, schedules, will not vary from estimates and projections prepared by BMcD.

Next Steps

Future project scoping studies will be necessary for project options that are of interest to EKPC. These studies would include refinement of general arrangements, a more in-depth review of plant failure modes, redundancy, life safety considerations, potential future expansions, more development of plant performance and expected emissions, project schedules, and development of front-end engineering deliverables. These include site design conditions and Code basis, permit matrix, project division of responsibility (DOR) matrix, equipment list, process flow diagram, heat & material balance, P&IDs, WMB, site arrangements, one-line diagrams, control system architecture, geotechnical analysis, system descriptions, water and wastewater analysis, and a further refined cost estimate based on these deliverables.

Summary & Recommendations

This memo report summarizes the new generation options reviewed and evaluated by BMcD and EKPC during the project feasibility study. This study was intended to provide EKPC with a greater understanding of each project's viability should they decide to pursue them further. Where this report focuses on the fossil fuel generation production of RICE, simple, and combined cycle facilities, additional studies and reports detail the other new generation options that EKPC is reviewing.

Of the RICE property options, several potential sites were promising, however Liberty 3 provides the environmentally preferable alternative including less impacts to adjacent properties and improved transmission support to EKPC's existing system. For CCGT facilities, both the existing Smith and Cooper Stations would provide favorable locations as the environmentally preferable alternatives to green field sites pending infrastructure upgrades. Additionally, the Smith station would also be able to support new SCGT generation. The Tygarts Creek location is promising but would need further siting development to ensure it remains a feasible location. BMcD will support EKPC with any additional generation or site location analysis and next step scoping studies to continue to progress these new generation options.

Memorandum



Sincerely,

Zach Bahr, P.E.
Engineering Manager

cc: Nick Bauer, Project Manager
Von Steiner, Project Manager

Appendix A – Conceptual General Arrangements
Appendix B – Scope Assumption Matrices
Appendix C – Water Mass Balances
Appendix D – Equipment Lists
Appendix E – One-Line Diagrams
Appendix F – Preliminary Level 1 Schedules
Appendix G – Performance and Emission Estimates
Appendix H – Generation Option Capital Cost Estimates

APPENDIX A – GENERAL ARRANGEMENTS

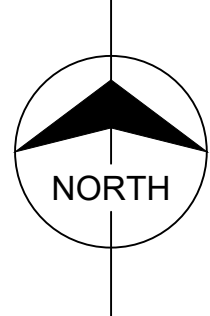


- LEGEND:**
- EXISTING BURIED GAS PIPELINE
 - REROUTED BURIED GAS PIPELINE
 - PIPELINE EASEMENT
 - BURIED GAS PIPELINE EASEMENT
 - PROPERTY LINE

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| E | 09/05/23 | WRL | | ADDED SWITCHYARD | | | | | | | | | | | |
| D | 08/30/23 | WRL | | REVISED PLANT LAYOUT LOCATION, ADJUST FOR NEW GAS LINE REROUTE | | | | | | | | | | | |
| C | 08/08/23 | WRL | | REVISE LOCATION OF GAS LINE | | | | | | | | | | | |
| B | 08/04/23 | WRL | | REVISED LAYOUT | | | | | | | | | | | |
| A | 07/12/23 | WRL | | PRELIMINARY | | | | | | | | | | | |
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SITE PLAN
0 200' 400'
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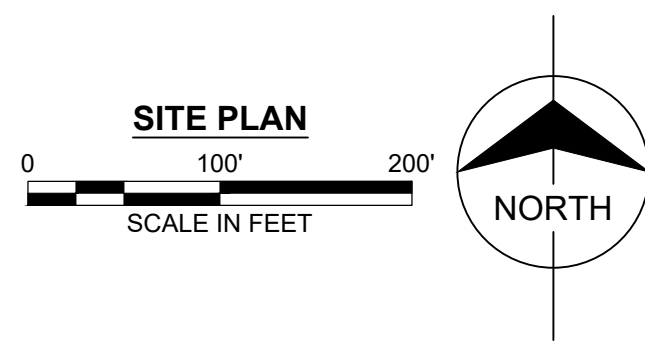


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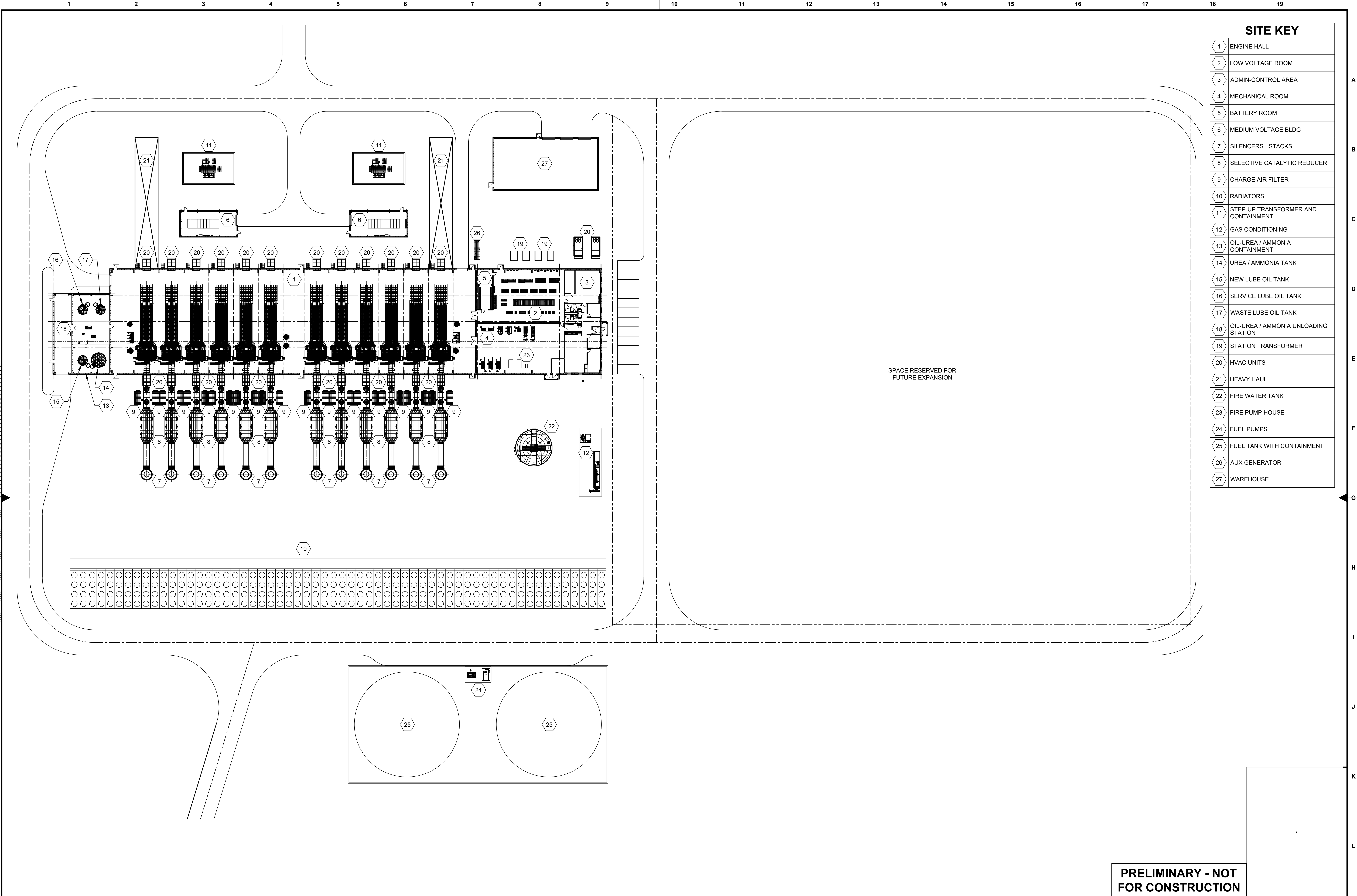


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| CAMPBELLSVILLE SITE 6 | | | |
| 12 x 18MW GAS RECIP ENGINE PLANT | | | |
| OVERALL SITE PLAN | | | |
| BASED ON WARTSILA ENGINES | | | |
| project | | contract | |
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| SITE KEY | |
|----------|--------------------------------------|
| 1 | ENGINE HALL |
| 2 | LOW VOLTAGE ROOM |
| 3 | ADMIN-CONTROL AREA |
| 4 | MECHANICAL ROOM |
| 5 | BATTERY ROOM |
| 6 | MEDIUM VOLTAGE BLDG |
| 7 | SILENCERS - STACKS |
| 8 | SELECTIVE CATALYTIC REDUCER |
| 9 | CHARGE AIR FILTER |
| 10 | RADIATORS |
| 11 | STEP-UP TRANSFORMER AND CONTAINMENT |
| 12 | GAS CONDITIONING |
| 13 | OIL-UREA / AMMONIA CONTAINMENT |
| 14 | UREA / AMMONIA TANK |
| 15 | NEW LUBE OIL TANK |
| 16 | SERVICE LUBE OIL TANK |
| 17 | WASTE LUBE OIL TANK |
| 18 | OIL-UREA / AMMONIA UNLOADING STATION |
| 19 | STATION TRANSFORMER |
| 20 | HVAC UNITS |
| 21 | HEAVY HAUL |
| 22 | FIRE WATER TANK |
| 23 | FIRE PUMP HOUSE |
| 24 | FUEL PUMPS |
| 25 | FUEL TANK WITH CONTAINMENT |
| 26 | AUX GENERATOR |
| 27 | WAREHOUSE |

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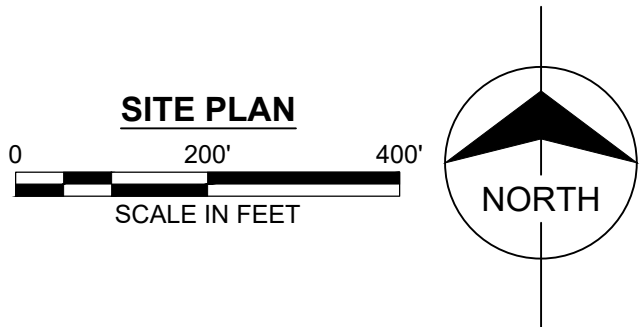
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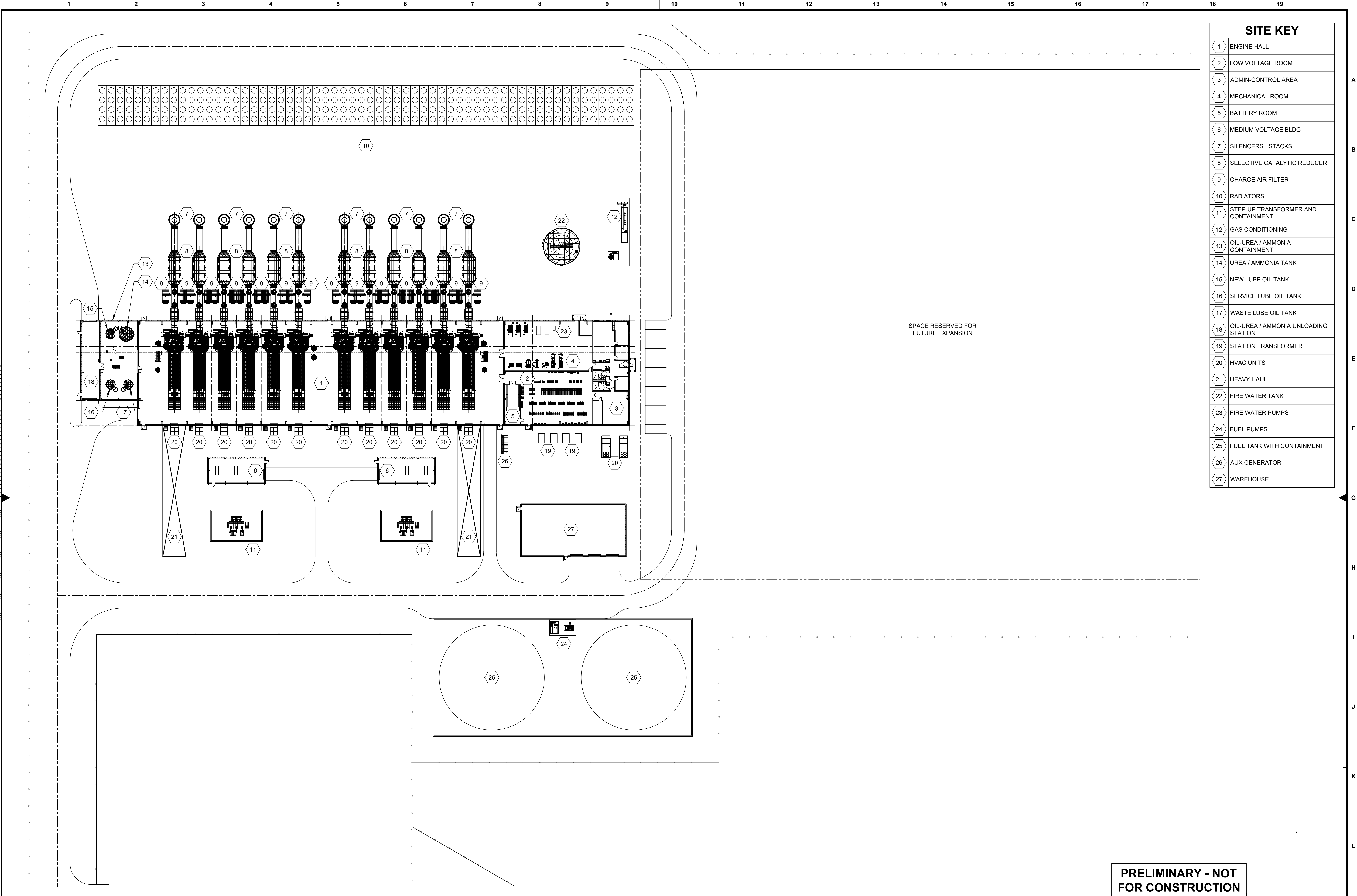
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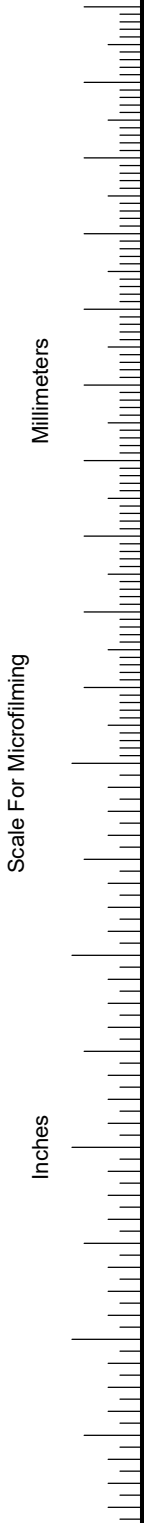
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| <table><tr><td>no.</td><td>date</td><td>by</td><td>ckd</td><td>description</td></tr><tr><td>A</td><td>05/26/23</td><td>WRL</td><td></td><td>PRELIMINARY</td></tr></table> | | | | no. | date | by | ckd | description | A | 05/26/23 | WRL | | PRELIMINARY | <table><tr><td>no.</td><td>date</td><td>by</td><td>ckd</td><td>description</td></tr><tr><td></td><td></td><td></td><td></td><td></td></tr></table> | | | | no. | date | by | ckd | description | | | | | | <p>POWER BLOCK ENLARGED PLAN</p> <p>0 16' 32' 64'</p> <p>SCALE IN FEET</p> | | <p>PLAN NORTH</p> <p>NORTH TRUE 37°0'0"</p> | | <p>BURNS MEDONNELL</p> <p>designed: detailed: W. LESNIAK</p> | | <p>EAST KENTUCKY POWER COOPERATIVE</p> | | <p>LIBERTY SITE 5 12 x 18MW GAS RECIP ENGINE PLANT OPTION B SITE ENLARGED PLAN</p> <table><tr><td>project</td><td>157785</td><td>contract</td><td></td></tr><tr><td>drawing</td><td></td><td>rev.</td><td>A</td></tr></table> <p>GA306 - A</p> <table><tr><td>sheet</td><td>of</td><td>sheets</td></tr><tr><td>file</td><td>157785_12X18MW-GA306-PORTER.DWG</td><td></td></tr></table> | | project | 157785 | contract | | drawing | | rev. | A | sheet | of | sheets | file | 157785_12X18MW-GA306-PORTER.DWG | |
| no. | date | by | ckd | description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | 05/26/23 | WRL | | PRELIMINARY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| no. | date | by | ckd | description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| project | 157785 | contract | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| drawing | | rev. | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| sheet | of | sheets | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| file | 157785_12X18MW-GA306-PORTER.DWG | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

STACK COORDS

| ITEM | NORTHING | EASTING |
|------|---------------|----------------|
| A | N: 140517.141 | E: 1686386.572 |
| B | N: 140412.085 | E: 1686463.143 |

A
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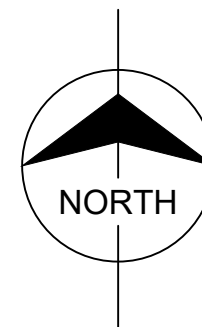


PRELIMINARY - NOT
FOR CONSTRUCTION

| no. | date | by | ckd | description |
|-----|----------|-----|-----|----------------------|
| B | 06/20/23 | WRL | - | REVISED PER REDLINES |
| A | 06/14/23 | WRL | - | PRELIMINARY |

| no. | date | by | ckd | description |
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OVERALL SITE PLAN
0 200' 400'
SCALE IN FEET



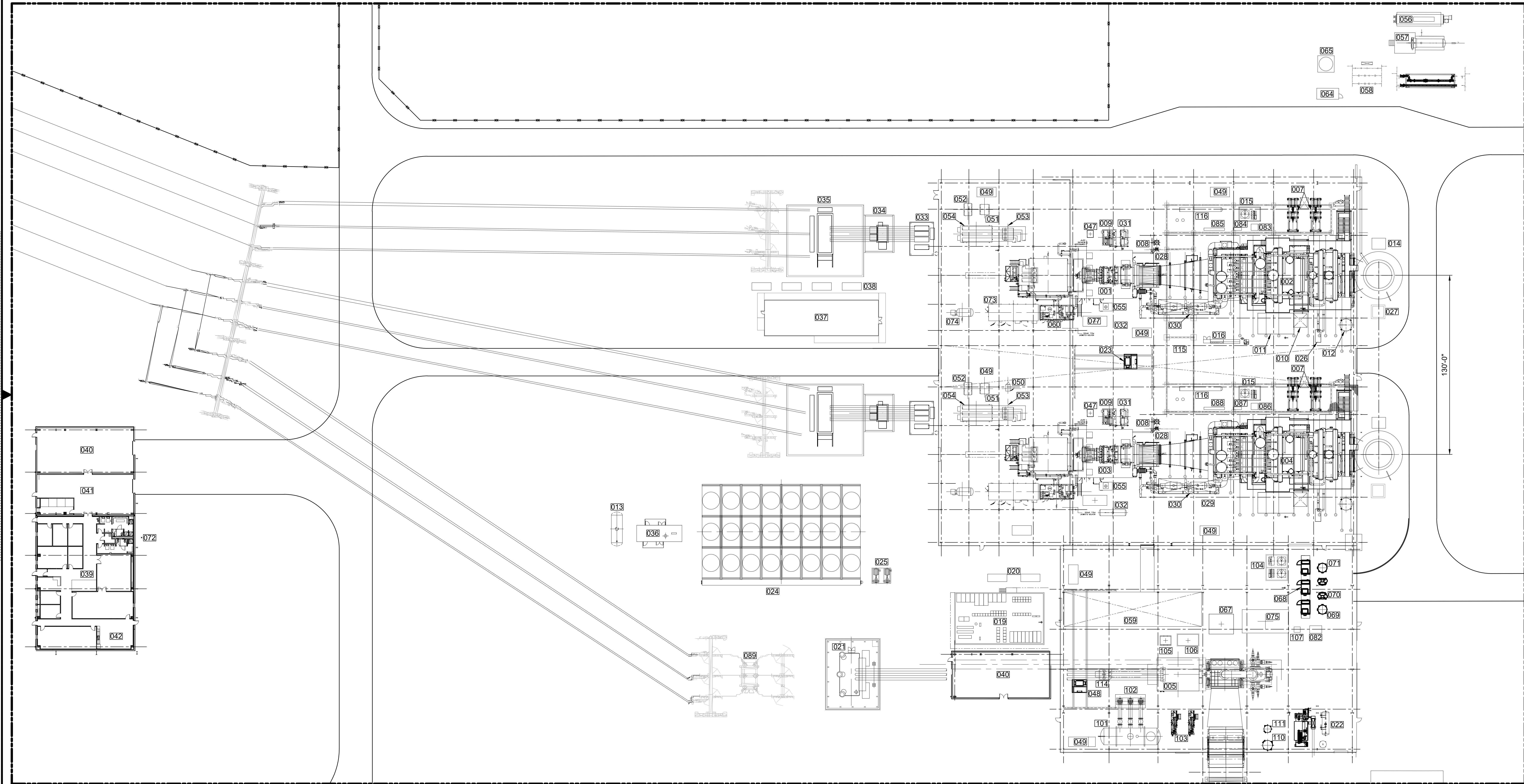
**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
FIRM LICENSE NO.
designed detailed
W. LESNIAK



CLARK COUNTY, KENTUCKY

| JK SMITH POWER PLANT 2 x1 CCGT PLANT OVERALL SITE PLAN | | | |
|--|---------------------------|----------|--|
| project | 157787 | contract | |
| drawing | | rev. | |
| GA001 — B | | | |
| sheet | of | | |
| file | 157787_2X1 CCGT-GA001.DWG | | |

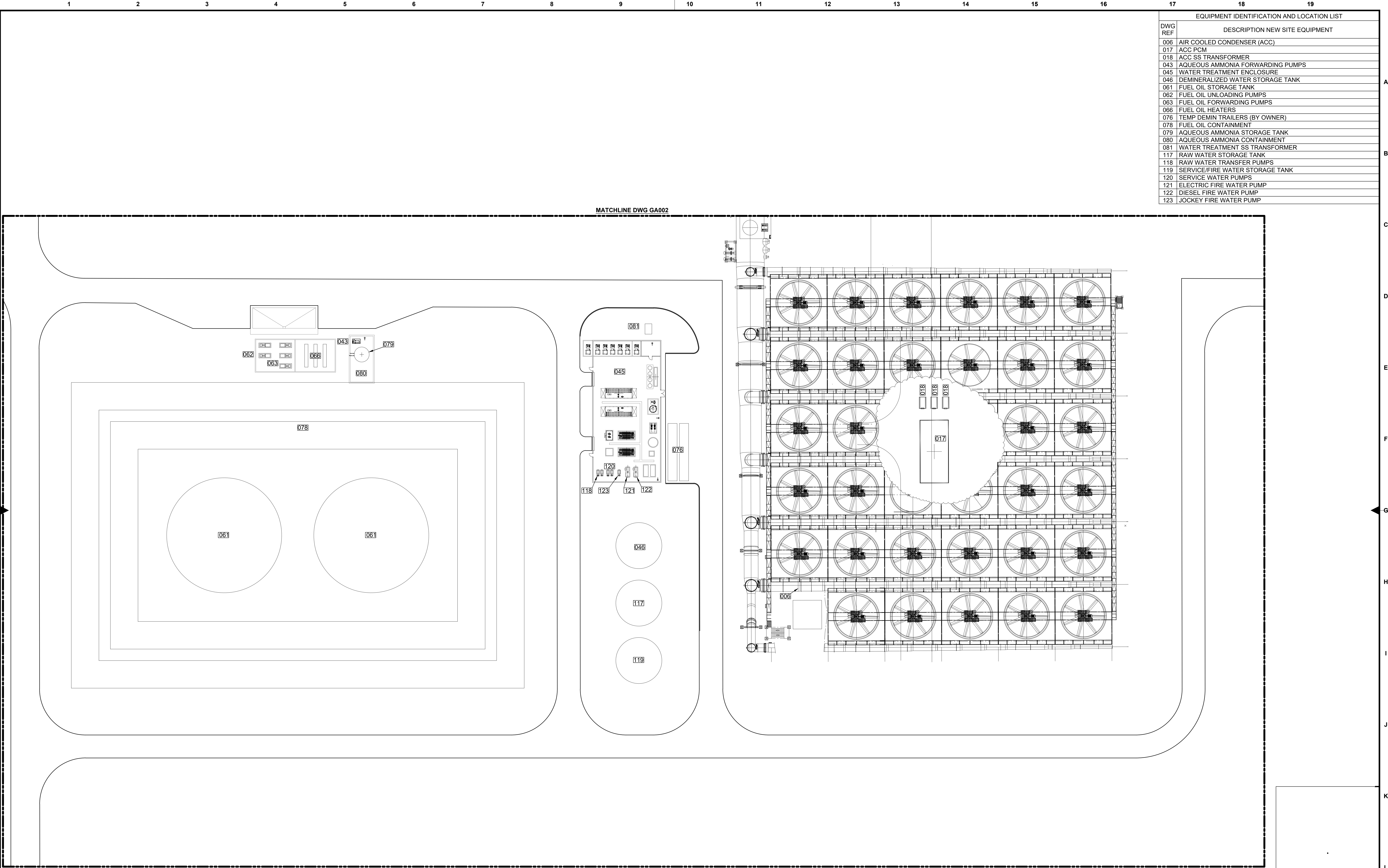
| 1 | | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | |
|--|---|---|--|-------------------------------------|---|--|---|---|--|---|----|--|---|----|--|---|----|---------|--------------------------------|--|
| EQUIPMENT IDENTIFICATION AND LOCATION LIST | | | EQUIPMENT IDENTIFICATION AND LOCATION LIST | | | EQUIPMENT IDENTIFICATION AND LOCATION LIST | | | EQUIPMENT IDENTIFICATION AND LOCATION LIST | | | EQUIPMENT IDENTIFICATION AND LOCATION LIST | | | EQUIPMENT IDENTIFICATION AND LOCATION LIST | | | | | |
| DWG REF | DESCRIPTION NEW SITE EQUIPMENT | | DWG REF | DESCRIPTION NEW SITE EQUIPMENT | | DWG REF | DESCRIPTION NEW SITE EQUIPMENT | | DWG REF | DESCRIPTION NEW SITE EQUIPMENT | | DWG REF | DESCRIPTION NEW SITE EQUIPMENT | | DWG REF | DESCRIPTION NEW SITE EQUIPMENT | | DWG REF | DESCRIPTION NEW SITE EQUIPMENT | |
| 001 | UNIT 1 GAS TURBINE (GT) | | 019 | STG PCM | | 037 | MAIN PCM | | 055 | GT AIR COMPRESSOR | | 073 | GT ELECTRICAL PACKAGE | | 102 | CONDENSATE PUMPS | | | | |
| 002 | UNIT 1 HEAT RECOVERY STEAM GENERATOR (HRSG) | | 020 | STG PCM SS TRANSFORMERS | | 038 | MAIN PCM SS TRANSFORMERS (TOTAL 4) | | 056 | FUEL GAS DEWPOINT HEATER | | 074 | GT FIRE PROTECTION PACKAGE | | 103 | VACUUM PUMP SKID | | | | |
| 003 | UNIT 2 GAS TURBINE (GT) | | 021 | STG GSU TRANSFORMER | | 039 | ADMINISTRATION BUILDING | | 057 | COALESCING FILTER SEPARATOR | | 075 | STEAM TURBINE LUBE OIL MODULE | | 104 | CHEMICAL FEED EQUIPMENT (AMINE & OXYGEN SCAV) | | | | |
| 004 | UNIT 2 HEAT RECOVERY STEAM GENERATOR (HRSG) | | 022 | AUXILIARY BOILER | | 040 | WAREHOUSE | | 058 | FUEL GAS REGULATING/METERING STATION BLDG | | 076 | TEMP DEMIN TRAILERS (SEE GA-003) | | 105 | STG SEE TRANSFORMER | | | | |
| 005 | UNIT 3 STEAM TURBINE GENERATOR (STG) | | 023 | GT CRANE | | 041 | MAINTENANCE SHOP | | 059 | LIFTING BAY | | 077 | GT PORTABLE COMPRESSOR WASHING UNIT | | 106 | STG SEE TRANSFORMER ELECT PACKAGE | | | | |
| 006 | AIR COOLED CONDENSER (ACC) (SEE GA-003) | | 024 | CLOSED COOLING WATER FIN FAN COOLER | | 042 | CONTROL ROOM | | 060 | GT LUBE OIL PACKAGE | | 078 | FUEL OIL CONTAINMENT (SEE GA-003) | | 107 | OIL STAINER | | | | |
| 007 | BOILER FEEDWATER PUMP | | 025 | CLOSED COOLING WATER PUMPS | | 043 | AQUEOUS AMMONIA FORWARDING PUMPS (SEE GA-003) | | 061 | FUEL OIL STORAGE TANK (SEE GA-003) | | 079 | AQUEOUS AMMONIA STORAGE TANK (SEE GA-003) | | 110 | STG ATM DRAINS TANK | | | | |
| 008 | GT FUEL GAS FILTER / SEPARATOR | | 026 | LP ECONOMIZER RECIRCULATION PUMPS | | 044 | NOT USED | | 062 | FUEL OIL UNLOADING PUMPS (SEE GA-003) | | 080 | AQUEOUS AMMONIA CONTAINMENT (SEE GA-003) | | 111 | STG FLASH TANK | | | | |
| 009 | GT FUEL OIL PUMP SKID | | 027 | CEMS | | 045 | WATER TREATMENT ENCLOSURE (SEE GA-003) | | 063 | FUEL OIL FORWARDING PUMPS (SEE GA-003) | | 081 | WATER TREATMENT SS TRANSFORMER (SEE GA-003) | | 114 | STG VT & SURGE CUBICLE | | | | |
| 010 | SCR LOADING ZONE | | 028 | FUEL GAS PILOT FILTER/SEPARATOR | | 046 | DEMINERALIZED WATER STORAGE TANK (SEE GA-003) | | 064 | RTU / DAC BUILDING | | 082 | ST CONTROL OIL SKID | | 115 | PIPE RACK | | | | |
| 011 | AMMONIA FLOW CONTROL UNIT | | 029 | NOT USED | | 047 | GT CONTROL OIL PACKAGE | | 065 | SUMP TANK | | 083 | U1 CTG CEMS | | 116 | PERFORMANCE HEATER | | | | |
| 012 | HRSG BLOWDOWN TANK | | 030 | ROTOR AIR COOLER | | 048 | STG BRIDGE CRANE | | 066 | FUEL OIL HEATERS (SEE GA-003) | | 084 | U1 HRSG DCS | | 117 | RAW WATER STORAGE TANK (SEE GA-003) | | | | |
| 013 | OIL WATER SEPARATOR | | 031 | GT WATER INJECTION PUMP SKID | | 049 | HV AIR ROTATION UNITS | | 067 | GLAND STEAM CONDENSER | | 085 | U1 HRSG 480V MCC | | 118 | RAW WATER TRANSFER PUMPS (SEE GA-003) | | | | |
| 014 | BLOWDOWN SUMP | | 032 | WATER WASH/FALSE START DRAINS TANK | | 050 | SFC CROSSOVER SWITCH CUBICLE | | 068 | AIR COMPRESSORS | | 086 | U2 CTG CEMS | | 119 | SERVICE/FIRE WATER STORAGE TANK (SEE GA-003) | | | | |
| 015 | HRSG CHEMICAL FEED (PHOSPHATE) | | 033 | GT GENERATOR CIRCUIT BREAKER | | 051 | GT SEE TRANSFORMER | | 069 | WET AIR RECEIVER | | 087 | U2 HRSG DCS | | 120 | SERVICE WATER PUMPS (SEE GA-003) | | | | |
| 016 | SAMPLE PANEL | | 034 | GT AUXILIARY TRANSFORMER | | 052 | GT SFC TRANSFORMER | | 070 | AIR DRYER SKIDS | | 088 | U2 HRSG 480V MCC | | 121 | ELECTRIC FIRE WATER PUMP (SEE GA-003) | | | | |
| 017 | ACC PCM (SEE GA-003) | | 035 | GT GSU TRANSFORMER | | 053 | GT VT & SURGE CUBICLE WITH SFC SWITCH | | 071 | DRY AIR RECEIVER | | 089 | STG 345KV BREAKER | | 122 | DIESEL FIRE WATER PUMP (SEE GA-003) | | | | |
| 018 | ACC SS TRANSFORMER (SEE GA-003) | | 036 | EMERGENCY DIESEL GENERATOR | | 054 | GT SEE / SFC PACKAGE | | 072 | SANITARY LIFT STATION | | 101 | CONDENSATE TANK | | 123 | JOCKEY FIRE WATER PUMP (SEE GA-003) | | | | |



MATCHLINE DWG GA003

PRELIMINARY - NOT FOR CONSTRUCTION

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|--|----------|-----|-----|----------------------|---|----------|-----|---|----------------------|---|----------|-----|---|-------------|-----|------|----|-----|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|-----|------|----|-----|-------------|---|---|--|--|
| <table><tr><td></td><td></td><td></td><td></td></tr><tr><td>B</td><td>06/20/23</td><td>WRL</td><td>-</td><td>REVISED PER REDLINES</td></tr><tr><td>A</td><td>06/14/23</td><td>WRL</td><td>-</td><td>PRELIMINARY</td></tr><tr><td>no.</td><td>date</td><td>by</td><td>ckd</td><td>description</td></tr></table> | | | | | B | 06/20/23 | WRL | - | REVISED PER REDLINES | A | 06/14/23 | WRL | - | PRELIMINARY | no. | date | by | ckd | description | <table><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td></td><td></td><td></td><td></td></tr><tr><td>no.</td><td>date</td><td>by</td><td>ckd</td><td>description</td></tr></table> | | | | | | | | | | | | | no. | date | by | ckd | description | <div>SITE PLAN</div> <div>PLAN NORTH 53.91° TRUE NORTH</div> <div>0 30' 60' SCALE IN FEET</div> | <div>BURNS MEDONNELL</div> <div>9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400</div> <div>Burns & McDonnell Engineering Company, Inc. FIRM LICENSE NO.</div> <div>designed detailed</div> <div>W. LESNIAK</div> | <div>EAST KENTUCKY POWER COOPERATIVE</div> <div>CLARK COUNTY, KENTUCKY</div> | <div>JK SMITH POWER PLANT 2 x1 CCGT PLANT ENLARGED SITE PLAN</div> <div>project 157787 contract</div> <div>drawing GA002 - B rev.</div> <div>sheet of sheets</div> <div>file 157787_2X1 CCGT-GA002.DWG</div> |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B | 06/20/23 | WRL | - | REVISED PER REDLINES | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A | 06/14/23 | WRL | - | PRELIMINARY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| no. | date | by | ckd | description | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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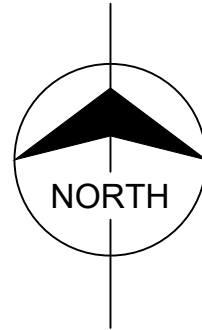
| EQUIPMENT IDENTIFICATION AND LOCATION LIST | |
|--|----------------------------------|
| DWG REF | DESCRIPTION NEW SITE EQUIPMENT |
| 006 | AIR COOLED CONDENSER (ACC) |
| 017 | ACC PCM |
| 018 | ACC SS TRANSFORMER |
| 043 | AQUEOUS AMMONIA FORWARDING PUMPS |
| 045 | WATER TREATMENT ENCLOSURE |
| 046 | DEMINERALIZED WATER STORAGE TANK |
| 061 | FUEL OIL STORAGE TANK |
| 062 | FUEL OIL UNLOADING PUMPS |
| 063 | FUEL OIL FORWARDING PUMPS |
| 066 | FUEL OIL HEATERS |
| 076 | TEMP DEMIN TRAILERS (BY OWNER) |
| 078 | FUEL OIL CONTAINMENT |
| 079 | AQUEOUS AMMONIA STORAGE TANK |
| 080 | AQUEOUS AMMONIA CONTAINMENT |
| 081 | WATER TREATMENT SS TRANSFORMER |
| 117 | RAW WATER STORAGE TANK |
| 118 | RAW WATER TRANSFER PUMPS |
| 119 | SERVICE/FIRE WATER STORAGE TANK |
| 120 | SERVICE WATER PUMPS |
| 121 | ELECTRIC FIRE WATER PUMP |
| 122 | DIESEL FIRE WATER PUMP |
| 123 | JOCKEY FIRE WATER PUMP |

PRELIMINARY - NOT
FOR CONSTRUCTION

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| B | 06/20/23 | WRL | - | REVISED PER REDLINES |
| A | 06/14/23 | WRL | - | PRELIMINARY |
| no. | date | by | ckd | description |

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| | | | | |
| | | | | |
| no. | date | by | ckd | description |

SITE PLAN
0 30' 60'
SCALE IN FEET



**BURNS
MCDONNELL**
9400 WARD PARKWAY
KANSAS CITY, MO 64114
816-333-9400
Burns & McDonnell Engineering Company, Inc.
FIRM LICENSE NO.
designed detailed
W. LESNIAK



CLARK COUNTY, KENTUCKY

| | |
|---|--------------|
| JK SMITH POWER PLANT 2 x1 CCGT PLANT ENLARGED SITE PLAN | |
| project 157787 | contract |
| drawing | rev. |
| GA003 - B | |
| sheet file 157787_2X1 CCGT-GA003.DWG | of sheets |



**PRELIMINARY - NOT
FOR CONSTRUCTION**

[illegible]

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

| STACK COORDS | | |
|--------------|---------------|----------------|
| ITEM | NORTHING | EASTING |
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| B | N: 140357.751 | E: 1686388.598 |
| C | N: 140693.398 | E: 1682392.241 |
| D | N: 140567.809 | E: 1682474.257 |
| E | N: 140121.373 | E: 1682815.328 |



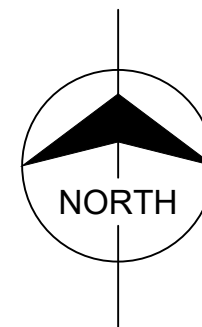
Scale For Microfilm
Inches
Millimeters

PRELIMINARY - NOT
FOR CONSTRUCTION

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| B | 07/31/23 | WRL | - | CHANGES PER REDLINES | |
| A | 07/05/23 | WRL | - | PRELIMINARY | |
| no. | date | by | ckd | description | |

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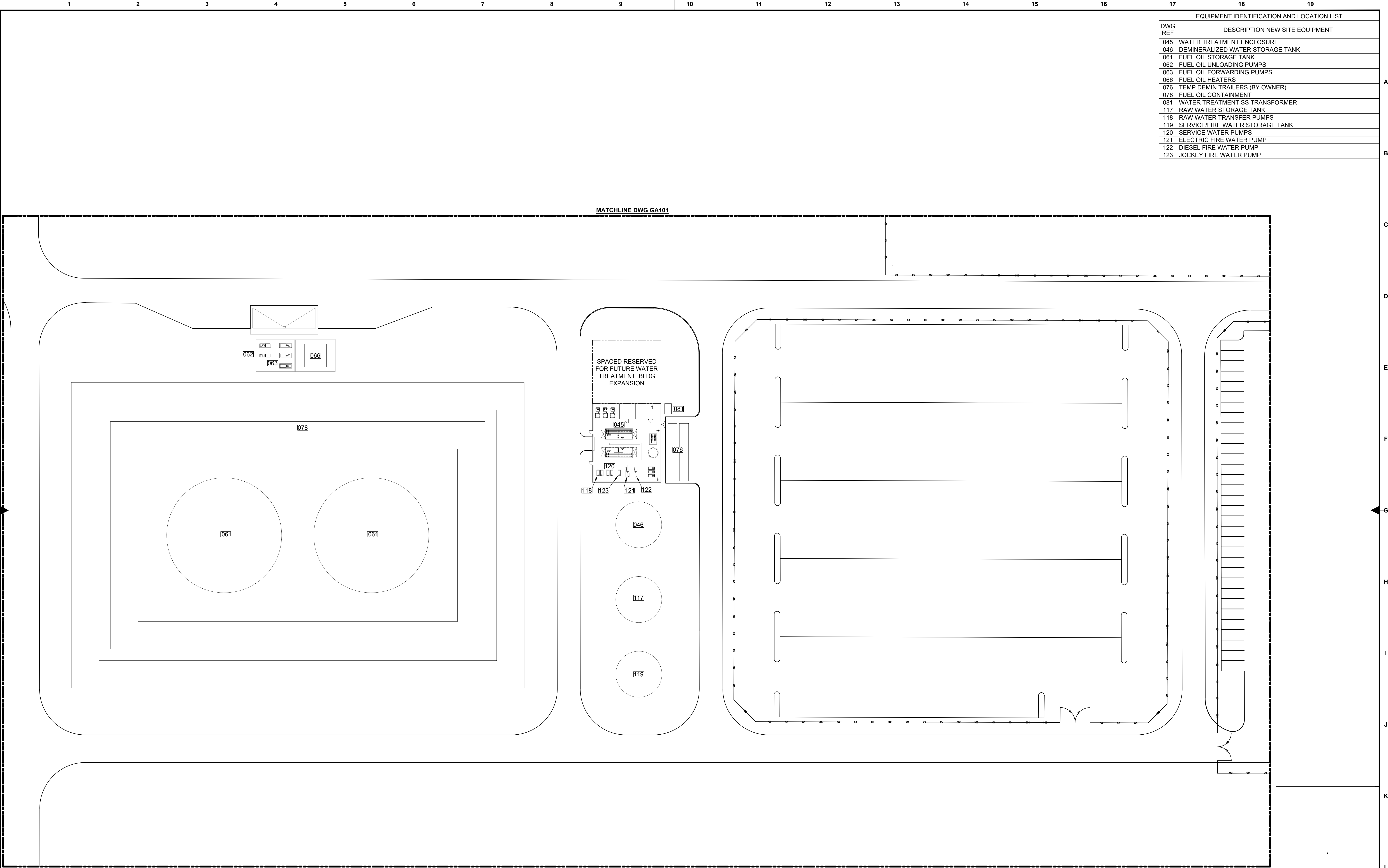
OVERALL SITE PLAN
0 200' 400'
SCALE IN FEET



**BURNS
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FIRM LICENSE NO.
designed detailed
W. LESNIAK

CLARK COUNTY, KENTUCKY

| JK SMITH POWER PLANT 5 x SCGT PLANT OVERALL SITE PLAN | | | |
|---|-----------------------|----------|------|
| project | 157787 | contract | |
| drawing | GA100 - B | | rev. |
| sheet | of | sheets | |
| file | 157787_SCGT-GA100.DWG | | |

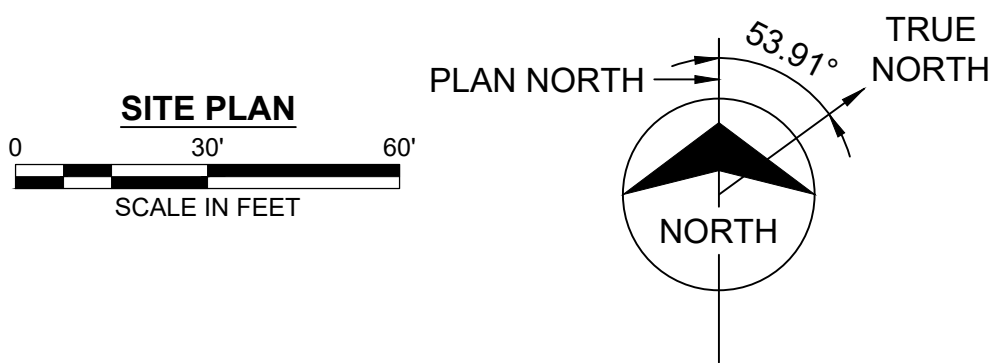


| EQUIPMENT IDENTIFICATION AND LOCATION LIST | |
|--|----------------------------------|
| DWG REF | DESCRIPTION NEW SITE EQUIPMENT |
| 045 | WATER TREATMENT ENCLOSURE |
| 046 | DEMINERALIZED WATER STORAGE TANK |
| 061 | FUEL OIL STORAGE TANK |
| 062 | FUEL OIL UNLOADING PUMPS |
| 063 | FUEL OIL FORWARDING PUMPS |
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| 076 | TEMP DEMIN TRAILERS (BY OWNER) |
| 078 | FUEL OIL CONTAINMENT |
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| 117 | RAW WATER STORAGE TANK |
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| 119 | SERVICE/FIRE WATER STORAGE TANK |
| 120 | SERVICE WATER PUMPS |
| 121 | ELECTRIC FIRE WATER PUMP |
| 122 | DIESEL FIRE WATER PUMP |
| 123 | JOCKEY FIRE WATER PUMP |

PRELIMINARY - NOT
FOR CONSTRUCTION

| | | | | | |
|-----|----------|-----|-----|----------------------|--|
| | | | | | |
| B | 07/31/23 | WRL | - | CHANGES PER REDLINES | |
| A | 07/05/23 | WRL | - | PRELIMINARY | |
| no. | date | by | ckd | description | |

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| | | | | | |
| no. | date | by | ckd | description | |



BURNS MEDONNELL

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Burns & McDonnell Engineering Company, Inc.
FIRM LICENSE NO.

designed detailed
W. LESNIAK

**EAST KENTUCKY
POWER COOPERATIVE**

CLARK COUNTY, KENTUCKY

| JK SMITH POWER PLANT 5 x SCGT PLANT ENLARGED SITE PLAN | |
|--|----------------|
| project | contract |
| 157787 | |
| drawing | rev. |
| GA102 - B | |
| sheet | of sheets |
| file 157787 | SCGT-GA102.DWG |



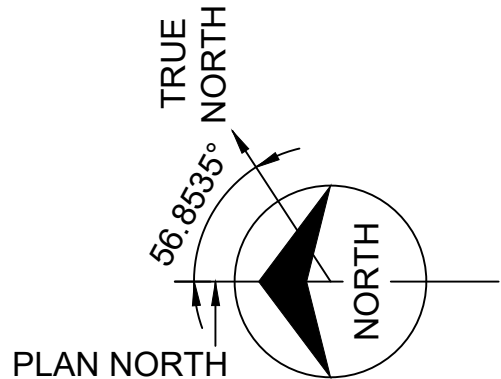
| EQUIPMENT IDENTIFICATION AND LOCATION LIST | |
|--|---|
| DWG REF | DESCRIPTION NEW SITE EQUIPMENT |
| 001 | COMBUSTION TURBINE (CT) |
| 002 | COMBUSTION TURBINE GENERATOR (CTG) |
| 003 | CT INLET AIR FILTER |
| 004 | AC REACTOR |
| 005 | CT ACCESSORY MODULE |
| 006 | AIR PROCESSING UNIT |
| 007 | PEEC UNIT |
| 008 | FINAL FILTER SEPARATOR |
| 009 | DC LINK REACTOR |
| 010 | CT FIRE PROTECTION SKID |
| 011 | WATER WASH SKID |
| 012 | COOLING WATER MODULE |
| 013 | EXCITER / LCI COMPARTMENT |
| 014 | GENERATOR STEP-UP TRANSFORMER (GSU) |
| 015 | MOBILE EQUIPMENT CONCRETE PAD |
| 016 | CEMS SHELTER |
| 017 | CTG LCI TRANSFORMER |
| 018 | CTG EXCITER TRANSFORMER |
| 019 | COOLING WATER PUMPS |
| 020 | CO2/HYDROGEN STORAGE BOTTLE RACKS |
| 021 | GENERATOR CIRCUIT BREAKER |
| 022 | NOT USED |
| 023 | CT EXHAUST STACK |
| 024 | DEAD END |
| 025 | NOT USED |
| 026 | NOT USED |
| 027 | CT WASH WATER DRAINS TANK (BELOW GRADE) |
| 028 | MEDIUM VOLTAGE BUILDING |
| 029 | ISOPHASE BUS |
| 030 | MAIN PCM SS TRANSFORMERS (X4) |

PRELIMINARY - NOT
FOR CONSTRUCTION

| | | | | | |
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| | | | | | |
| A | 07/31/23 | WRL | - | CHANGES PER REDLINES | |
| no. | date | by | ckd | description | |

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| | | | | | |
| no. | date | by | ckd | description | |

SITE PLAN
0 30' 60'
SCALE IN FEET



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| JK SMITH POWER PLANT 5 x SCGT PLANT ENLARGED SITE PLAN | |
|--|--------------|
| project 157787 | contract |
| drawing GA103 | rev. A |
| sheet file 157787_SCGT-GA103.DWG | of sheets |

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APPENDIX B – SCOPE ASSUMPTION MATRIX

**East Kentucky Power Cooperative
Liberty RICE
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|---|
| GENERAL PROJECT INFORMATION | | | | |
| Project Description | - | - | - | New 12x18 MW (or 11x20 MW) Reciprocating Internal Combustion Engine (RICE) Generator plant including all auxiliary equipment. Gross output with all engines at 100% capacity at summer design conditions shall be 216 MW (or 220 MW). Engines and most equipment will be stored indoors. |
| Project Location | - | - | - | Near Liberty, KY |
| Site Description | - | - | - | Greenfield site |
| Design Fuel | - | - | - | New natural gas pipeline feed with fuel oil storage tanks on site for backup |
| Operation | - | - | - | Peaking as required, but can be utilized for continuous service |
| Capacity Factor | - | - | - | 20% |
| Contracting Approach | - | - | - | EpCm (Procurement managed by BMcD, on Owner books) |
| Labor | - | - | - | Union or Non-Union |
| Project Liquidated Damages | - | - | - | Schedule and performance for each contract |
| Project Bonding /LOC | - | - | - | 100% Bonding. |
| Project COD Dates | - | - | - | May 2030 |
| Project Expansion | - | - | - | Future Expansion space considered to the north of the proposed building location. Equipment not sized for future expansion. |
| Future Fuels Consideration | - | - | - | Provide option pricing for Hydrogen rated piping |
| MECHANICAL SYSTEMS/EQUIPMENT | | | | |
| CLOSED COOLING WATER | | | | |
| Cooling/Maintenance Water Tank | Y | 2 | 100% | |
| Cooling Water Transfer pump | Y | 2 | 100% | |
| Radiators | Y | 12 | 100% | 5 blocks per engine |
| Expansion Vessels | Y | 12 | 100% | 1 x 100% per generator |
| COMPRESSED AIR | | | | |
| Instrument Air Compressors | Y | 3 | 50% | |
| Starting Air Compressors | Y | 3 | 50% | Sized to reload starting air bottles within 1.5 hours |
| Air Dryers | Y | 2 | 100% | |
| Wet Receiver | Y | 1 | 100% | |
| Dry Receiver | Y | 2 | 100% | |
| Starting Air Receivers | Y | 4 | 33% | Sized for 1 engine start per Engine for facility (assuming starting air compressors not operating) |
| Engine Hall Pressure Regulating Valves | Y | 2 | 100% | |
| EXHAUST | | | | |
| Exhaust Gas Module (EGM) | Y | 12 | 100% | 1 x 100% per generator |
| Selective Catalytic Reducer (SCR) | Y | 12 | 100% | 1 x 100% per generator |
| Exhaust Gas Probe | Y | 12 | 100% | 1 x 100% per generator |
| Exhaust Gas (NOx) Analyzer | Y | 12 | 100% | 1 x 100% per generator |
| NOx Sensor System | Y | 12 | 100% | 1 x 100% per generator |
| Exhaust Silencer/Stack | Y | 12 | 100% | 1 x 100% per generator |
| FIRE PROTECTION SYSTEM | | | | |
| Design Basis | Y | - | - | NFPA 850, NFPA 37, and NFPA 30 recommended practices |
| Insurer/special requirements | Y | - | - | FM Global |
| RICE Fire Protection | Y | - | - | Water and alarm. Engine Hall to be sprinkled and supplied with fire extinguishers, detectors, and alarms |
| Electrical Rooms | Y | - | - | CO2 and alarm |
| Pump supply source(s) | Y | 2 | 100% | Electric motor and Diesel driven fire pump taking suction from the Service/Fire Water Storage Tank. Jockey maintenance pump to maintain line pressure. |
| Storage | Y | - | - | Fire Water Storage Tank. Insulated with immersion heater |
| Fire loop | Y | - | - | Standalone fire loop, HDPE meeting NFPA |
| Sprinklers | Y | - | - | Provided for occupied buildings per NFPA 13 including Engine Hall, admin/office/control rooms, restrooms, mechanical room and warehouse space. |
| Fire/Gas Detection | Y | - | - | Where necessary per NFPA |
| FUEL GAS | | | | |
| Supply Source | - | - | - | New pipeline from TN Gas |
| Compression | N | - | - | Transfer of custody point provides gas at 200 psig, 55 degF. |
| Metering & Regulation Yard | Y | 2 | 100% | Provided, owned and operated by Pipeline Owner. Plant designed to support load change capability (ramp rate) from minimum load to maximum load of 4 MW/min/engine. |
| House Gas Regulating Skid | Y | 2 | 100% | Provided, owned and operated by Pipeline Owner. |
| Dew Point Heating | Y | 1 | 100% | Provided, owned and operated by Pipeline Owner |
| Fuel Gas Filter/Coalescer Skid | Y | 1 | 100% | Provided by BMcD |
| RICE Generator Sets | Y | 12 | 8.3% | Designed for peaking operation, but able to run continuously. Maximum 3 starts and 3 stops per day, per engine, 7 days a week. Designed to operate at 25% of maximum electrical rated output capacity while meeting air permit emission requirements. Included with modular pipe rack, auxiliary platforms, and all miscellaneous equipment |
| Compact Gas Ramp | Y | 12 | 100.0% | |
| Fuel Gas Chromatograph System | Y | 1 | 100% | Required for Wärtsilä, optional for MAN supply. |
| Fuel Gas Analyzer Units | Y | 1 | 100% | |
| FUEL OIL | | | | |
| Supply Source | - | - | - | Trucked |
| Fuel Oil Storage Tank | Y | 2 | 50% | Sized for 72 hrs of operation at full load (assuming no fuel gas available). Located within secondary containment structure. Provided with leak detection. |
| Fuel Oil Unloading Pumps | Y | 3 | 50% | |
| Fuel Oil Forwarding Pumps | Y | 3 | 50% | |
| Fuel Oil Heater | Y | 2 | 50% | Fuel oil will be utilized primarily when temperatures drop below 10 degF. Confirm heater sizing and fuel oil consumption. |
| HVAC SYSTEMS | | | | |

East Kentucky Power Cooperative
Liberty RICE
Scope Assumptions Matrix



| | | Y/N | Number | % Capacity (per Unit) | Notes |
|---|--|-----|--------|--------------------------|--|
| | Building electric heaters, exhaust fans and intake louvers, air-conditioning | Y | TBD | 100% | As required for occupied buildings and electrical rooms |
| INTAKE AIR | | | | | |
| | Charge Air Filters | Y | 24 | 50% | 2 x 50% per generator |
| LUBE OIL SYSTEM | | | | | |
| | New Oil Tank | Y | 1 | 100% | Includes immersion heater |
| | Lube Oil Filter | Y | 1 | 100% | |
| | Service/Used Oil Tank | Y | 1 | 100% | |
| | Waste Oil Tank | Y | 1 | 100% | |
| | Lube Unloading Pumps | N | 0 | 100% | Lube Oil Tankers have integral lube oil unloading pumps. |
| | Lube Oil Transfer Pumps | Y | 2 | 100% | Provided by OEM |
| | Lube Oil Cooler | Y | 12 | 100% | 1 x 100% per generator |
| | Engine Auxiliary Module (EAM) | Y | 12 | 100% | 1 x 100% per generator |
| | Oil Mist Separator | Y | 12 | 100% | 1 x 100% per generator |
| | Mobile Lube Oil Pump | Y | 1 | 100% | |
| MAKE-UP WATER | | | | | |
| | Supply Source | - | - | - | City potable water |
| | Service/Potable Water Booster Pump | Y | 1 | 100% | |
| | Fire Water Storage | Y | 1 | 100% | Firewater tank dedicated fire water capacity |
| | Service Water Transfer Pumps | N | 0 | 100% | |
| POTABLE WATER SYSTEM | | | | | |
| | Supply Source | Y | - | - | City tap, assumes sufficient flow capacity |
| | Potable Water Bladder Tank | Y | 1 | 100% | |
| | Potable Water Heater | Y | 1 | 100% | Instantaneous Heater for SSEWs |
| | Emergency Eye Wash/Safety Showers | Y | 5 | 100% | Battery Room, Unloading, Urea, Maintenance Water Tanks |
| SANITARY SEWER SYSTEM | | | | | |
| | Sanitary Lift Station | Y | 1 | 100% | Supplied with 2 x 100% pumps |
| | Sanitary Treatment Facility | Y | 1 | 100% | Waste Holding Tank |
| UREA SYSTEM | | | | | |
| | Urea Flow Control Skid | Y | 1 | 100% | |
| | Urea Forwarding Pump Skid | Y | 2 | 100% | |
| | Urea Storage Tank | Y | 2 | 50% | Sized for the greater of 7 days of station operation at full load on natural gas, or 3 days of operation on ULSD |
| | SCR Ammonia Distribution Grid | N | 0 | 100% | |
| | SCR Catalyst | Y | 12 | 100% | 1 x 100% per generator |
| | Leak Detection | Y | 2 | - | Each Tank |
| WASTEWATER | | | | | |
| | Contaminated Wastewater | Y | - | - | Drains for areas around equipment that could be contaminated with oil will be directed through an oil/water separator (OWS). Discharge OWS effluent to Holding Tank. |
| | Wastewater Tank | N | | | |
| | Waste Water Sump Pump | N | | | |
| | Oil Water Separator (OWS) | Y | 1 | 100% | Included 2 x 50% sump pumps |
| | Water Treatment Reject | N | - | - | |
| CATHODIC PROTECTION | | | | | |
| | Underground Steel Piping | Y | - | - | Cathodic protection system will be galvanic anode type, if required. |
| | Underground Steel Tanks | Y | - | - | |
| CONTROLS | | | | | |
| Equipment Control | | | | | |
| | RICE | Y | - | - | Control system provided by equipment OEM with local HMI |
| | Medium Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| | Motor Control Centers | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| | Low Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| | Plant Control System | Y | - | - | Provided system will link all RICE controllers and HMI application servers. Provided with redundant ethernet to application servers. Will utilize OEM PCS. |
| | Plant Historian | Y | - | - | Provided by OEM. Include Pi historian as well. |
| | Offsite Interfaces | Y | - | - | Dispatching, OEM Monitoring, EKPC Monitoring |
| Automatic Generation Control | | | | | |
| | Distributed Control System (DCS) | N | | | OEM will provide PCS with balance of plant equipment integration. |
| Vibration monitoring | | | | | |
| | RICE | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| | BOP Critical and High Speed Motors | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers, if required. |
| Plant Simulator | | | | | |
| | Digital Bus | Y | - | - | EKPC to follow up with what is included with other simulator designs within fleet. |
| | Foundation Fieldbus | N | - | - | |
| | Remote I/O | Y | - | - | |
| Instrumentation | | | | | |
| | Transmitters | Y | - | - | 4-20 mA as available. |
| | HART | Y | - | - | Install tri-loops on valves for feedback. |
| | Performance Testing | Y | - | - | |
| | Meteorological Station | Y | - | - | Provided by OEM. |
| Continuous Emissions Monitoring System | | | | | |
| | | Y | 12 | 100% | 1x100% per stack. Datalink to DCS. Cabinet style CEMS (1 per stack) |
| Relaying Data Link | | | | | |
| | | Y | - | - | Redundant relay communications network for protection and control. See Equipment Control section for equipment / relay interfaces to the control system. |
| Communication | | | | | |
| | Dispatching | Y | - | - | Automatic Generation Control through RTU communication. BMcD to include RTU in Estimate as Owner Costs. |
| | Off site monitoring/administrations | Y | - | - | OEM for RICE Controller Remote Connection |
| | Switchyard | Y | - | - | Communication Interface with Switchyard RTU |

East Kentucky Power Cooperative
Liberty RICE
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|-----------------------|--|
| Internal plant | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| External | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| NERC CIP Requirements | Y | - | - | Low impact. |
| HMI | Y | - | - | Stand Alone Controllers with local HMI's. Plant Control HMI located in New Control Room and Switchgear building. |
| ELECTRICAL | | | | |
| Generator Step-Up Transformers: | | | | |
| RICE | Y | 2 | 100% | Two (2) three-winding GSU transformers. Each transformer services 6 RICE engines with 3 generators per secondary / tertiary winding. |
| Auxiliary/Reserve Transformers: | | | | |
| Auxiliary Transformer | Y | 4 | 100% | 2x100% for every 6 engines. |
| Generator Buses: | | | | |
| 13800V Switchgear | Y | 4 | 100% | One switchgear bus per 3 generators. Switchgear connected to the associated GSU transformer via cable bus. Feeder breakers to auxiliary transformers will be provided to serve station power. |
| Generator Circuit Breakers: | | | | |
| RICE | Y | 12 | 100% | Switchgear circuit breakers will serve as generator circuit breaker and provide synchronization. |
| Blackstart Generator(s) and Capability | N | - | - | Standby auxiliary generator only. |
| Electrical Equipment Enclosures: | Y | 1 | 100% | Most electrical equipment will be located inside electrical room in Engine Hall. Medium voltage bus housed in standalone electrical building. |
| Switchgear: | | | | |
| 480V Switchgear | Y | 4 | 100% | Two (2) lineups configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| Motor Control Centers: | | | | |
| 480 V MCCs | Y | - | - | Rated for operating load |
| Emergency Power: | | | | |
| Uninterruptible Power (UPS) | Y | - | - | A single Balance of Plant UPS system will be provided. |
| DC System | Y | 1 | 100% | Primary and secondary power source from 24 VDC panel which feeds into active redundancy module. The 24 VDC feed from the active redundancy module provides two power supplies to the PLC system. Included with 2x100% DC battery chargers |
| Standby Auxiliary Generator | Y | 1 | 100% | Sized to support loss of power to facility |
| Stand Alone Control Systems | | | | |
| Fire Protection/Detection | Y | - | - | See fire protection section in Mechanical for details |
| Plant HVAC | Y | - | - | See HVAC section in Mechanical for details |
| Building/Site Security | Y | - | - | |
| Plant Communications | Y | - | - | |
| On-Line Battery Monitoring: | Y | - | - | |
| Lighting | | | | |
| Normal | Y | - | - | LED-lighting; lighting required for new road and plant buildings. |
| Emergency Egress | Y | - | - | Local battery pack fixtures will be provided for emergency egress. |
| Grounding | Y | - | - | New grounding grid |
| Lightning Protection | Y | - | - | A UL Master Label will be provided for the new facility. |
| Freeze Protection | Y | - | - | Heat tracing designed to maintain 40F for fluids subject to freezing based on size and service |
| Electrical Studies: | | | | |
| Load Flow, voltage drop, short circuit | Y | - | - | Identify equipment and bus loading, motor terminal voltages and available fault currents at each voltage level |
| Protective coordination/relay settings | Y | - | - | |
| Arc Flash | Y | - | - | |
| Cabling | Y | - | - | Cable tray and field routed conduit above grade, duct bank below grade |
| Transmission / Interconnection: | Y | - | - | Discuss in separate scope review. |
| CIVIL/STRUCTURAL | | | | |
| Existing Facilities | N | - | - | Greenfield site. Topographic and property survey required. |
| Layout Considerations | Y | - | - | Sufficient room for future expansion considered. Tie-ins to new gas pipeline and transmission. |
| Disposal of Spoils | - | - | - | Excess spoils will be disposed of on-site, used for fill if possible. No hazardous materials accounted for in project estimate. |
| Soils Conditions / Stability | Y | - | - | |
| Soil Improvement | Y | - | - | |
| Subsurface Rock | Y | - | - | |
| Subsurface water | Y | - | - | Possible dewatering may be needed - geotechnical report utilize to determine. |
| Cut/Fill | Y | - | - | Use existing site materials to grade the site and avoid off-site borrow. |
| Disposal of debris | - | - | - | Disposed of on-site. |
| Permanent Stormwater | - | - | - | New stormwater to be collected in ditches and control surfaces, and routed to new permitted outfall |
| Construction Stormwater | Y | - | - | Erosion control will be in accordance with state and local guidelines and regulations and will include best management practices such as silt fence, rock check dams, slope protection, construction exits, and stormwater pond(s) for construction and permanent. A SWPPP will be prepared. |
| Roads | Y | - | - | All new roads for site |
| Surfacing | - | - | - | Main access roads shall be paved with asphaltic concrete. Maintenance roads and areas will be covered with crushed rock. Other areas top soil and seeded. |
| Soil Bearing Capacity | - | - | - | Determined by Geotech report. |
| Foundation type | - | - | - | Determined by Geotech report. |
| Transformer Containment | Y | - | - | Containment for oil-filled transformer will be provided with an open pit design. |
| Guardshack | Y | - | - | New guard shack |
| Enclosures | | | | |

East Kentucky Power Cooperative
Liberty RICE
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|---|
| Engine Hall | Y | 1 | - | Building housing engines with separate rooms for electrical, administrative, mechanical, battery storage. Includes ridge vent and bridge crane. |
| Warehouse | Y | 1 | - | PEMB adjacent to Engine Hall, approx. 50' x 100' |
| Fire Pump | Y | 1 | - | |
| Medium Voltage Buildings | Y | 2 | - | qty = 2 |
| CEMS Enclosure | N | | | |
| Guard Shack | Y | 2 | - | Main security guard shack incorporate utilities for restrooms. Construction entrance guard shack will not. |
| Maintenance cranes | Y | - | - | Engine hall bridge crane |
| Site Security | Y | - | - | Cameras, badge access for all doors. Include costs for 24/7 security during construction |
| Landscaping | Y | - | - | Berm and Landscaping between plant and neighbors. |
| Fence | Y | - | - | New fence around perimeter of new plant facilities. Automated slide gate at facility entrance. |
| CONSTRUCTION | | | | |
| Utilities | | | | |
| Power | Y | - | - | Construction power from aux. generators |
| Communication | Y | - | - | Cellular |
| Construction Water | Y | - | - | Trucked until City potable tie-in connection is commissioned |
| Potable Water | Y | - | - | Trucked until City potable tie-in connection is commissioned |
| Sanitary | Y | - | - | Portable facilities provided by construction contractors |
| Parking | Y | - | - | New permanent parking adjacent to engine hall. Temporary construction parking to be identified. |
| Gate Entry | | | | |
| Main | Y | - | - | New guard shack |
| Personnel/Craft | Y | - | - | New main gate/construction entrance |
| Delivery | Y | - | - | New slide gate for construction and operation entrances |
| Construction Field Office / Trailers | | | | |
| Owner | Y | - | - | Will include Trailers in Owners Costs sheet. |
| Engineer | Y | - | - | Will include Trailers in Owners Costs sheet. |
| Vendors | Y | - | - | Will include Trailers in Owners Costs sheet. |
| Contractors | N | - | - | Will include Trailers in Owners Costs sheet. Contractors provide their own Trailers. |
| Site Services | Y | - | - | Cleaning, snow removal, dumpsters, etc. |
| Laydown area | Y | - | - | On site areas to be identified with easements located |
| Warehouses | Y | - | - | Contractor will provide necessary storage space during construction. |
| OWNER COSTS / MISC. | | | | |
| Permits | | | | |
| See Permit Matrix | Y | - | - | BMCD to include |
| Owner's Costs | | | | |
| Project Development | Y | - | - | Allowance to be included |
| Owner's Operations Personnel | Y | - | - | Allowance to be included |
| Owner's Project Management | Y | - | - | Allowance to be included |
| Owner's Engineer | N | - | - | |
| Owner's Legal Counsel | Y | - | - | Allowance to be included |
| Political Concessions / Area Development Fees | Y | - | - | Allowance to be included |
| Permitting & License Fees | Y | - | - | Allowance to be included |
| Land | Y | - | - | Allowance to be included |
| Water Rights Costs | Y | - | - | Allowance to be included |
| Water Infrastructure and Supply to Site | Y | - | - | New City potable water for supply |
| Natural Gas Infrastructure and Supply to Site | N | - | - | New pipeline, captured in separate project scope costs. |
| Labor Camp | N | - | - | |
| Permanent Plant Operating Spare Parts | Y | - | - | Allowance to be included |
| Maintenance Tools & Equipment | Y | - | - | Allowance to be included |
| Permanent Plant Equipment & Furnishings | Y | - | - | Allowance to be included |
| Sales Tax | Y | - | - | Sales tax is excluded, other than for non-permanent consumables and supplies |
| Escalation | Y | - | - | Allowance to be included |
| Owner's Contingency | Y | - | - | Allowance to be included |
| Interest During Construction | N | - | - | Excluded |
| Temporary Utilities | Y | - | - | Included in EPC costs |
| Startup Testing Fuels and Consumables | Y | - | - | Allowance to be included |
| Operator training | Y | - | - | Allowance to be included |
| Site Security | Y | - | - | Allowance to be included |
| EXCLUSIONS | | | | |
| Taxes | - | - | - | Sales, use, gross receipts, property, and other types. |
| Insurance | - | - | - | All insurance other than General Liability being carried as a project cost |
| Sound abatement above normal supply | - | - | - | Performing a sound analysis to help determine necessity. |
| Aesthetic landscaping other than erosion control | - | - | - | Included in landscaping costs. |
| High escalation associated with extreme market | - | - | - | |
| Financing fees | - | - | - | |
| Interest during construction | - | - | - | |

East Kentucky Power Cooperative
Smith 2x1 Combined Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|-------------------------------------|-----|--------|--------------------------|---|
| GENERAL PROJECT INFORMATION | | | | |
| Project Description | - | - | - | New 2x1 dual fuel combined cycle combustion turbine power plant consisting of two (2) advanced F-class combustion turbines (CTGs), two (2) heat recovery steam generators (HRSGs), a single condensing steam turbine generator (STG), and an air-cooled condenser (ACC). The new CTGs, STG, HRSGs, and associated auxiliary equipment will be located indoors. |
| Project Location | - | - | - | Clark County, KY. |
| Site Description | - | - | - | Existing brownfield site at Smith Station. |
| Design Fuel | - | - | - | Existing natural gas pipeline at site with fuel oil backup (ultra low sulfur diesel) |
| Heat Rejection | - | - | - | New air-cooled condenser |
| Operation | - | - | - | Baseloaded with outages for maintenance |
| Capacity Factor | - | - | - | 90% |
| Contracting Approach | - | - | - | Multi-prime. |
| Labor | - | - | - | Union or Non-Union. |
| Project Liquidated Damages | - | - | - | Schedule and performance for each contract. |
| Project Bonding /LOC | - | - | - | 100% Bonding. |
| Project COD Dates | - | - | - | 2030 |
| Project Expansion | - | - | - | Future expansion considered. Not shown on General Arrangement. |
| MECHANICAL SYSTEMS/EQUIPMENT | | | | |
| AQUEOUS AMMONIA SYSTEM | | | | |
| Ammonia Flow Control Skid | Y | 2 | 100% | One per HRSG. |
| Ammonia Forwarding Pump Skid | Y | 3 | 100% | One per HRSG plus common spare |
| Ammonia Storage Tank | Y | 1 | 100% | |
| Ammonia Unloading Skid | Y | 1 | 100% | |
| SCR Ammonia Distribution Grid | Y | 2 | 100% | One per HRSG. |
| SCR Catalyst | Y | 2 | 100% | |
| Detection | N | - | - | |
| AUXILIARY STEAM | | | | |
| Aux Steam Electric Superheater | Y | 1 | 100% | |
| Aux Boiler | Y | 1 | 100% | Natural gas-fired for plant startup |
| Aux Boiler Deaerator | Y | 1 | 100% | |
| Aux Boiler Blowdown Tank | Y | 1 | 100% | |
| Aux Boiler Forced Draft (FD) Fan | Y | 1 | 100% | |
| Aux Boiler Feedwater Pumps | Y | 2 | 100% | |
| Aux Boiler Sample Analysis Panel | Y | 2 | 100% | |
| CLOSED COOLING WATER (CCW) | | | | |
| Air-Cooled Heat Exchanger (ACHE) | Y | 1 | 100% | |
| CCW Pumps | Y | 2 | 100% | |
| CCW Head Tank | Y | 1 | 100% | |
| Glycol type | Y | - | - | Propylene |
| CTG Cooler | Y | 4 | 25% | |
| CTG Lube Oil Cooler | Y | 2 | 50% | |
| BFP Heat Exchanger | Y | 2 | 100% | |
| HRSG Recirc Pump Heat Exchanger | Y | 2 | 100% | |
| COMPRESSED AIR | | | | |
| Air Compressors | Y | 3 | 50% | Air-Cooled, Oil-Free, Rotary Screw |
| Air Dryer/Filters | Y | 2 | 100% | Twin-Tower, Heatless Desiccant with pre- and after-filters |
| Wet Air Receiver | Y | 1 | 100% | |
| Dry Air Receiver | Y | 1 | 100% | |
| CONDENSATE SYSTEM | | | | |
| | | | | Single pressure, two-stage design, sized for full load operation at max ambient conditions as defined by Heat Balance, and will include provisions for HRSG warm-up and 100% steam bypass. Includes: Hot box connection with distribution ducts, motor-actuated sectionalizing valves and drains, fin tube bundles and tube cleaning system, 2-100% liquid ring vacuum pumps, condensate collection headers, steel support structure, two-speed fans, fan deck, platforms and stairs |
| Air-Cooled Condenser (ACC) | Y | 1 | 100% | |
| ACC Condensate Storage Tank | Y | 1 | 100% | |
| Condensate Pumps | Y | 3 | 50% | Vertical can-type |
| Gland Steam Condenser | Y | 1 | 100% | |
| Steam Turbine Flash Tank | Y | 1 | 100% | |
| CYCLE CHEMICAL FEED | | | | |
| Ammonia/Amine System | Y | 2 | 100% | |
| Phosphate System | Y | 6 | 50% | 3x50% per HRSG |
| Oxygen Scavenger System | Y | 2 | 100% | Includes 2x100% feed pumps |
| DEMINERALIZED WATER SYSTEM | | | | |
| Demineeralized Water Transfer Pumps | Y | 2 | 100% | |
| Demineeralized Water Storage Tank | Y | 1 | 100% | Field erected tank. Sizing based on steam cycle makeup, evaporative cooler makeup, and NOx water injection (while firing on fuel oil) |
| Reverse Osmosis (RO) Prefilters | Y | 2 | 100% | |
| Two-Pass RO Skids | Y | 2 | 100% | Skids include booster pumps |
| Mixed Bed Demineeralization System | Y | 2 | 100% | |
| Clean in Place (CIP) System | Y | 1 | 100% | Includes tank, heater, cartridge filter and forwarding pump |
| Chemical Dosing Skids | Y | 9 | 100% | Each skid will have 2x100% or 3x50% redundancy. |
| Chemical Totes | Y | 9 | 100% | Chemicals as required based on source water quality. |
| FEEDWATER SYSTEM | | | | |
| Feedwater pumps | Y | 4 | 100% | With interstage bleed and control valves. Designed for max flow during full load operation with both combustion turbines and full steam turbine bypass. 2x100% for each HRSG (100% capacity defined by max unfired demand with STG bypass) |
| FIRE PROTECTION | | | | |
| Design Basis | Y | - | - | NFPA 850 recommended practice. |
| Insurer/special requirements | Y | - | - | FM Global |
| CTG Fire Protection | Y | - | - | CO2 and alarm |
| Electrical Equipment Rooms / PCMs | Y | - | - | CO2 and alarm |

**East Kentucky Power Cooperative
Smith 2x1 Combined Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|--|
| Pump supply source(s) | Y | 2 | 100% | Electric motor and Diesel driven fire pump taking suction from the Service/Fire Water Storage Tank. Jockey pump to maintain header pressure and for small leaks. |
| Storage | Y | 1 | 100% | Combined Service/Fire Water Storage Tank fed from makeup water source |
| Fire loop | Y | - | - | Standalone fire loop |
| Sprinklers | Y | - | - | Provided for occupied buildings per NFPA 13 including admin/office areas, laboratories, restrooms and warehouse space. A Pre-action sprinkler system will be provided for STG bearing protection. A deluge spray system will be provided for STG lube oil storage tank and piping. |
| Foam System | N | - | - | |
| Smoke/heat detectors | Y | - | - | Where necessary or recommended by NFPA |
| Fire walls | Y | - | - | 2-hr fire walls where required by NFPA |
| FUEL OIL | | | | |
| Storage Tank | Y | 2 | 50% | Field Erected tank sized for 72 hours of GT operation at full load. Additional tank capacity of 8 hours of continuous operator of backup diesel generator. Located within secondary containment structure |
| Transfer Pumps | Y | 3 | 100% | 1 x 100% for each combustion turbine unit with 1 x 100% common spare located near fuel oil tank. |
| Unloading Pumps | Y | 3 | 100% | Two (2) truck unloading stations. 1 x 100% unloading pump for each unloading station with 1 x 100% common spare. |
| Heating | Y | 3 | 50% | 3 x 50% inline electric heaters with recirculation system. Each heater sized for 50% of total plant fuel oil flow (all three units). |
| Duplex Filter | Y | 2 | 100% | One skid for each CTG (provided by CTG supplier) |
| Meter | Y | 2 | 100% | One for each CTG (provided by CTG supplier) |
| HVAC SYSTEMS | | | | |
| Building electric heaters, exhaust fans and intake louvers, air-conditioning | Y | TBD | 100% | As required for occupied buildings and electrical rooms |
| MAKE-UP WATER | | | | |
| Supply Source | - | - | - | Existing onsite clarified water fed from Kentucky River. Tie point will be downstream of existing clarifier |
| Clarified Water Transfer Pumps | Y | 2 | 100% | |
| Clarified Water Storage Tank | Y | 1 | 100% | |
| Clarified Water Ultra Filtration (UF) Filters | Y | 2 | 100% | |
| UF Backwash Tank | Y | 1 | 100% | |
| UF Backwash Pumps | Y | 2 | 100% | |
| Chemical Feed Pumps | Y | 8 | 100% | Chemicals as required based on source water quality |
| Chemical Totes | Y | 4 | 100% | |
| Service/Fire Water Storage | Y | 1 | 100% | Field erected tank, includes immersion heater(s) and insulation. Standpipe for dedicated fire water volume. |
| Service Water Transfer Pumps | Y | 2 | 100% | |
| NATURAL GAS | | | | |
| Off-site Pipeline | N | - | - | Natural gas available at an interconnection at/near the site boundary. |
| Compression | N | - | - | |
| Metering & Regulation | Y | 2 | 100% | |
| Dew Point Heating | Y | 2 | 100% | 1 x 100% per CTG. Natural gas fired dew point heaters |
| Combustion Gas Turbine (CTG) | Y | 2 | 50% | Dual fuel rated (natural gas and ULSD) F-class gas turbine generators provided with inlet silencers, air filtration systems, low Nox combustors, lube oil systems, hydraulic oil systems, starting systems, acoustical enclosures with HVAC, controls, fire protection and fuel systems |
| Fuel Gas Filter Separator | Y | 2 | 100% | |
| Fuel Gas Metering Skid | Y | 2 | 100% | |
| Fuel Gas Pilot Fuel Filter Separator Skid | Y | 2 | 100% | |
| Fuel Gas Heater Skid | Y | 2 | 100% | |
| Fuel Gas Knockout Drum | Y | 2 | 100% | |
| Fuel Gas Filter Separator Skid | Y | 1 | 100% | Supply gas filter separator and drains tank |
| Fuel Gas Drains Tank | Y | 2 | 100% | 1x100% per CTG |
| NITROGEN | | | | |
| Nitrogen Bottles, Distribution Manifold | Y | 1 | 100% | |
| POTABLE WATER | | | | |
| Supply Source | Y | - | - | City tap, assumes sufficient pressure and flow |
| Emergency Eye Wash/Safety Showers | Y | 14 | 100% | |
| Potable Water Water Heater Tanks | Y | 7 | 100% | |
| SAMPLE ANALYSIS | | | | |
| Sample Analysis Panel | Y | 1 | 100% | Sample cycle make-up, reclaim water supply, condensate pump discharge and after chemical feed, HRSG water and steam, BFP suction and discharge, and wastewater discharge |
| Sample Analysis Cooler | Y | 1 | 100% | |
| SANITARY SEWER | | | | |
| Sanitary Lift Station | Y | 1 | 100% | Lift station includes 2x100% sewage pumps |
| Sanitary Sewer Pumps | Y | 2 | 100% | |
| Sanitary Treatment Facility | Y | 1 | 100% | Biotreatment of sanitary waste prior to effluent to existing wastewater outfall |
| STEAM | | | | |
| Steam Turbine Generator (STG) | Y | 1 | 100% | Multi-stage, reheat, straight-condensing steam turbine including HP, reheat, and LP steam from HRSG's. Provided with stop and control valves, non-return valves, hydraulic control oil systems, lube oil systems, exhaust hood spray system, gland steam system including condenser with exhausters, turning gear, water induction prevention, and turbine control system with DCS interface |
| STG Atmospheric Drains Tank | Y | 1 | 100% | |
| Heat Recovery Steam Generator (HRSG) | Y | 2 | 50% | Triple pressure level, reheat, natural circulation type with horizontal gas turbine exhaust flow through vertical tube heat transfer sections. Includes SCR and CO/VOC catalysts. Self-supported stacks with ports for emission monitoring, platforms and ladder access. Water chemistry controlled via continuous blowdown and chemical addition as required. |
| Turbine Gland Steam Condenser Module | Y | 1 | 100% | |
| WASTEWATER | | | | |

East Kentucky Power Cooperative
Smith 2x1 Combined Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|-----------------------|---|
| Contaminated Wastewater | Y | - | - | Drains for areas around equipment that could be contaminated with oil will be directed through an oil/water separator. |
| Oil/Water Separator (OWS) | Y | 1 | 100% | OWS includes 2x100% pumps. Effluent discharged to existing outfall |
| Plant Drains Sump Pumps | Y | 7 | 100% | Sumps and sump pumps as required |
| Washwater/False Start Drains Tank | Y | 2 | 100% | 1x100% per CTG |
| Blowdown/Recycle Tank | Y | 1 | 100% | Recover steam drum blowdown and recycle into influent water treatment system |
| Recycle Pumps | Y | 2 | 100% | |
| CATHODIC PROTECTION | | | | |
| Underground Steel Piping | Y | - | - | Cathodic protection system will be galvanic anode type, if required. |
| Underground Steel Tanks | Y | - | - | Coated with sacrificial anodes, if required. |
| DEMOLITION | Y | - | - | Existing buried utilities for coal plant will be demolished as required for new design |
| CONTROLS | | | | |
| Equipment Control | | | | |
| CTG | Y | - | - | Control system provided by equipment OEM with local HMI for each CTG |
| STG | Y | - | - | Control system provided by equipment OEM with local HMI |
| Medium Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Motor Control Centers | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Low Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Plant Control System | Y | - | - | Provided system will link all CTG and STG controllers and HMI application servers. Provided with redundant ethernet to application servers. |
| Plant Historian | Y | - | - | |
| Offsite Interfaces | Y | - | - | Dispatching, OEM Monitoring, EKPC Monitoring |
| Automatic Generation Control | | | | |
| Distributed Control System (DCS) | Y | 1 | 100% | Balance of Plant controls same as CTG and STG control for Siemens. Separate DCS would be needed for GE turbines. |
| Vibration monitoring | | | | |
| CTG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| STG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| BOP Critical and High Speed Motors | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| Plant Simulator | Y | - | - | EKPC to confirm. |
| Digital Bus | | | | |
| Foundation Fieldbus | N | - | - | |
| Remote I/O | Y | - | - | |
| Instrumentation | | | | |
| Transmitters | Y | - | - | |
| HART | Y | - | - | Install tri-loops on valves for feedback. |
| Performance Testing | Y | - | - | |
| Meteorological Station | N | - | - | |
| Continuous Emissions Monitoring System | Y | 2 | 100% | 1x100% per stack. Datalink to DCS |
| Relaying Data Link | Y | - | - | Redundant relay communications network for protection and control. See Equipment Control section for equipment / relay interfaces to the control system. |
| Communication | Y | - | - | Datalinks for Battery Monitoring, Gas Yard, Gas Compressors/Dewpoint Heaters, Air Compressors, CEMS |
| Dispatching | Y | - | - | Automatic Generation Control through RTU communication |
| Off site monitoring/administrations | Y | - | - | OEM for Turbine Controller Remote Connection |
| Switchyard | Y | - | - | Communication Interface with Switchyard RTU |
| Internal plant | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| External | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| NERC CIP Requirements | Y | - | - | EKPC to confirm. E.g. CIP low, medium, etc. |
| HMI | Y | - | - | Stand Alone Controllers with local HMI's. Plant Control HMI located in New Control Room, Admin DCS Room and Switchgear building. |
| ELECTRICAL | | | | |
| Generator Step-Up Transformers: | | | | |
| Gas Turbine | Y | 2 | 100% | 1x100% for each CTG |
| Steam Turbine | Y | 1 | 100% | |
| Auxiliary/Reserve Transformers: | | | | |
| Gas Turbine | Y | 2 | 100% | 1x100% for each CTG |
| Generator Buses: | | | | |
| Gas Turbine | Y | 2 | 100% | Isolated Phase Bus: 1x100% for each CTG |
| Steam Turbine | Y | 1 | 100% | Isolated Phase Bus: 1x100% for STG |
| Generator Circuit Breakers: | | | | |
| Gas Turbine | Y | 2 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Steam Turbine | Y | 1 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Blackstart Generator(s) and Capability | N | - | - | |
| Electrical Equipment Enclosures: | Y | - | - | Base scope will house electrical equipment inside power building, ACC building, or water treatment building. |
| Switchgear: | | | | |
| 4160V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| 480V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| Motor Control Centers: | | | | |
| 480 V MCCs | Y | - | - | Rated for the operating load |
| Emergency Power: | | | | |
| Uninterruptible Power (UPS) | Y | - | - | A single Balance of Plant UPS system will be provided for the STG and BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| DC System | Y | - | - | A single Balance of Plant DC system will be provided for the STG and BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| Standby Diesel Generator | Y | - | - | Standby diesel generator rated for OEM and BOP Essential operating loads as well as heat trace to maintaining a safe shutdown condition. |
| Stand Alone Control Systems | | | | |
| Fire Protection/Detection | Y | - | - | See fire protection section in Mechanical for details |
| Plant HVAC | Y | - | - | See HVAC section in Mechanical for details |

East Kentucky Power Cooperative
Smith 2x1 Combined Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|--|
| Building/Site Security | Y | - | - | |
| Plant Communications | Y | - | - | |
| On-Line Battery Monitoring: | Y | - | - | |
| Lighting | | | | |
| Normal | Y | - | - | LED-lighting; lighting required for new road and plant buildings. |
| Emergency Egress | Y | - | - | Local battery pack fixtures will be provided for emergency egress. |
| Grounding | Y | - | - | Brownfield site. New grounding grid with ties to the existing plant grid as applicable. |
| Lightning Protection | Y | - | - | A UL Master Label will be provided for the new facility. |
| Freeze Protection | Y | - | - | Heat tracing designed to maintain 40F for fluids subject to freezing based on size and service |
| Electrical Studies: | | | | |
| Load Flow, voltage drop, short circuit | Y | - | - | Identify equipment and bus loading, motor terminal voltages and available fault currents at each voltage level |
| Protective coordination/relay settings | Y | - | - | |
| Arc Flash | Y | - | - | |
| Cabling | Y | - | - | Cable tray and field routed conduit above grade, duct bank below grade |
| Transmission / Interconnection: | N | - | - | Per EKPC |
| CIVIL/STRUCTURAL | | | | |
| Existing Facilities | Y | - | - | Brownfield site. Tie into existing Smith system (roads, storm drainage). Topographic survey of the plant areas will be required. |
| Layout Considerations | Y | - | - | Reuse part of existing infrastructure and road from previous coal plant construction |
| Disposal of Spoils | - | - | - | Excess spoils will be disposed of on-site, used for fill if possible. No hazardous materials accounted for in project estimate. |
| Soils Conditions / Stability | - | - | - | New combined cycle will be in area of coal-fired unit. No geotechnical information provided for coal-fired unit area. Estimate assumptions generally based on geotechnical information for existing Units -12 combustion turbines. |
| Soil Improvement | N | - | - | No soil improvement is assumed |
| Subsurface Rock | N | - | - | Assume no rock excavation required. |
| Subsurface water | N | - | - | No dewatering included. |
| Cut/Fill | - | - | - | Use existing site materials to grade the site and avoid off-site borrow. |
| Disposal of debris | - | - | - | Disposed of on-site. However, debris from the existing foundation demolition and existing buried piping demolition would have to be transported to a permitted facility or the facility on-site would have to be permitted for this use. |
| Permanent Stormwater | - | - | - | Existing. New surface water drainage ditches and piping to collect and direct to offsite outfall. Regrading as required to follow existing drainage paths. |
| Construction Stormwater | - | - | - | Erosion control will be in accordance with state and local guidelines and regulations and will include best management practices such as silt fence, rock check dams, slope protection, construction exits, and stormwater pond(s) for construction and permanent. A SWPPP will be prepared. |
| Roads | N | - | - | Existing plant roads to allow for deliveries via truck. |
| Surfacing | - | - | - | Main access roads shall be paved. Maintenance roads and areas will be covered with crushed rock. Other areas top soil and seeded. |
| Soil Bearing Capacity | - | - | - | Soil bearing capacity not available. To be determined by geotechnical investigation. Foundation types assumed as noted below based on an allowable bearing capacity of approximately 2,500 psf. |
| Foundation type | - | - | - | Assume CTG, STG, HRSG, ACC, and Generation Building will be pile-supported. All other equipment/structures will be supported on shallow foundations (mats or footings). A geotechnical investigation will be needed to confirm these assumptions. |
| Transformer Containment | - | - | - | Containment for oil-filled transformer will be provided with an open pit design. |
| Demolition (Foundation) | Y | - | - | See "Disposal of debris" and "Disposal of Spoils" sections above. |
| Enclosures | | | | |
| Generation Building | Y | 1 | 100% | Building housing CTG, HRSG, STG, and Aux Boiler (including control room, warehouse space, administrative space with offices, and machine shop) |
| Water Treatment Building | Y | 1 | 100% | Building cranes included for CTG and STG |
| ACC Building | Y | 1 | 100% | Building housing water treatment equipment and fire water pumps |
| Electrical (see electrical section) | Y | - | - | Building to house ACC equipment and electrical |
| Warehouse/Admin Facilities | Y | 1 | 100% | |
| Maintenance Shops | Y | 1 | 100% | |
| Maintenance cranes | Y | - | - | |
| Guardshack | N | - | - | Existing Smith guardshack used. |
| Site Security | - | - | - | Included in Owner's costs |
| Landscaping | - | - | - | Minimal landscaping included. Disturbed areas will be seeded for erosion control. |
| Fence | N | - | - | Assume existing perimeter security fence is adequate for new plant |
| CONSTRUCTION | | | | |
| Utilities | | | | |
| Power | Y | - | - | Construction power from existing J.K Smith facility |
| Communication | Y | - | - | Tie-in to existing system |
| Construction Water | Y | - | - | Tie-in to existing J.K. Smith facility service water system |
| Potable Water | Y | - | - | Tie-in to existing J.K. Smith facility potable water system |
| Sanitary | Y | - | - | Portable facilities provided by construction contractors |
| Parking | Y | - | - | New permanent parking adjacent to Generation building and Water Treatment building. Temporary construction parking to be identified. |
| Gate Entry | | | | |
| Main | - | - | - | Existing Smith guard shack. |
| Personnel/Craft | - | - | - | Existing Smith main gate and guard shack. |
| Delivery | - | - | - | New slide gate for construction. |
| Construction Field Office / Trailers | | | | |
| Owner | Y | - | - | Trailers in Owners Costs. |
| Engineer | Y | - | - | Trailers in Owners Costs. |
| Vendors | Y | - | - | Trailers in Owners Costs. |
| Contractors | Y | - | - | Trailers in Owners Costs. |
| Site Services | Y | - | - | Trailers in Owners Costs. |
| Laydown area | Y | - | - | On site areas to be identified |

East Kentucky Power Cooperative
Smith 2x1 Combined Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|--|
| Warehouses | Y | - | - | Existing warehouse is full; Contractor will provide necessary storage space during construction. |
| OWNER COSTS / MISC. | | | | |
| Permits | | | | |
| See Permit Matrix | Y | - | - | EKPC w/ BMCD Support. |
| Owner's Costs | | | | |
| Project Development | Y | - | - | Allowance to be included |
| Owner's Operations Personnel | Y | - | - | Allowance to be included |
| Owner's Project Management | Y | - | - | Allowance to be included |
| Owner's Engineer | N | - | - | |
| Owner's Legal Counsel | Y | - | - | Allowance to be included |
| Political Concessions / Area Development Fees | Y | - | - | Allowance to be included |
| Permitting & License Fees | Y | - | - | Allowance to be included |
| Land | N | - | - | Brownfield, existing |
| Water Rights Costs | Y | - | - | Allowance to be included |
| Water Infrastructure and Supply to Site | N | - | - | Existing |
| Natural Gas Infrastructure and Supply to Site | N | - | - | N/A, reuse existing |
| Labor Camp | N | - | - | |
| Permanent Plant Operating Spare Parts | Y | - | - | Allowance to be included |
| Maintenance Tools & Equipment | Y | - | - | Allowance to be included |
| Permanent Plant Equipment & Furnishings | Y | - | - | Allowance to be included |
| Sales Tax | Y | - | - | Sales tax is excluded, other than for non-permanent consumables and supplies |
| Escalation | Y | - | - | Allowance to be included |
| Owner's Contingency | Y | - | - | Allowance to be included |
| Interest During Construction | N | - | - | Excluded |
| Temporary Utilities | Y | - | - | Included in EPC costs |
| Startup Testing Fuels and Consumables | Y | - | - | Allowance to be included |
| Operator training | Y | - | - | Allowance to be included |
| Site Security | Y | - | - | Allowance to be included |
| GENERAL ASSUMPTIONS | | | | |
| Reuse of Existing Equipment and Systems | Y | - | - | Existing equipment, piping, cables, etc. are in adequate working order and can be reused without modifications |
| EXCLUSIONS | | | | |
| Taxes | - | - | - | Sales, use, gross receipts, property, and other types. |
| Insurance | - | - | - | All insurance other than General Liability being carried as a project cost |
| Sound abatement above normal supply | - | - | - | |
| Aesthetic landscaping other than erosion control | - | - | - | |
| High escalation associated with extreme market conditions | - | - | - | |
| Financing fees | - | - | - | |
| Interest during construction | - | - | - | |

**East Kentucky Power Cooperative
Cooper 2x1 Combined Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|-------------------------------------|-----|--------|--------------------------|--|
| GENERAL PROJECT INFORMATION | | | | |
| Project Description | - | - | - | New 2x1 dual fuel combined cycle combustion turbine power plant consisting of two (2) advanced F-class combustion turbines (CTGs), two (2) heat recovery steam generators (HRSGs), a single condensing steam turbine generator (STG), and a cooling tower. The new CTGs, STG, HRSGs, and associated auxiliary equipment will be located indoors. |
| Project Location | - | - | - | Pulaski County, KY. |
| Site Description | - | - | - | Existing brownfield site at Cooper Power Station. |
| Design Fuel | - | - | - | New natural gas pipeline routed to site with fuel oil backup (ultra low sulfur diesel) |
| Heat Rejection | - | - | - | Wet counterflow, mechanical draft cooling tower |
| Operation | - | - | - | Baseloaded with outages for maintenance |
| Capacity Factor | - | - | - | 90% |
| Contracting Approach | - | - | - | Multi-prime. |
| Labor | - | - | - | Union or Non-Union. |
| Project Liquidated Damages | - | - | - | Schedule and performance for each contract. |
| Project Bonding /LOC | - | - | - | 100% Bonding. |
| Project COD Dates | - | - | - | 2030 |
| Project Expansion | - | - | - | None considered |
| MECHANICAL SYSTEMS/EQUIPMENT | | | | |
| AQUEOUS AMMONIA SYSTEM | | | | |
| Ammonia Flow Control Skid | Y | 2 | 100% | One per HRSG. |
| Ammonia Forwarding Pump Skid | Y | 3 | 100% | One per HRSG plus common spare |
| Ammonia Storage Tank | Y | 1 | 100% | |
| Ammonia Unloading Skid | Y | 1 | 100% | |
| SCR Ammonia Distribution Grid | Y | 2 | 100% | One per HRSG. |
| SCR Catalyst | Y | 2 | 100% | |
| Detection | N | - | - | |
| AUXILIARY STEAM | | | | |
| Aux Steam Electric Superheater | Y | 1 | 100% | |
| Aux Boiler | Y | 1 | 100% | Natural gas-fired for plant startup |
| Aux Boiler Deaerator | Y | 1 | 100% | |
| Aux Boiler Blowdown Tank | Y | 1 | 100% | |
| Aux Boiler Forced Draft (FD) Fan | Y | 1 | 100% | |
| Aux Boiler Feedwater Pumps | Y | 2 | 100% | |
| Aux Boiler Sample Analysis Panel | Y | 2 | 100% | |
| CIRCULATING WATER | | | | |
| Cooling Tower | Y | 1 | 100% | Mechanical draft counterflow FRP cooling tower on concrete basin |
| Circulating Water Pumps | Y | 2 | 50% | |
| Aux Cooling Water Pump | Y | 1 | 100% | |
| Cooling Tower Chem Feed Tanks | Y | 2 | 100% | Chemicals as required based on source water quality |
| | | | | Each skid will have 2x100% or 3x50% redundancy. |
| Cooling Tower Chem Feed Skids | Y | 5 | 100% | Chemicals as required based on source water quality. |
| CLOSED COOLING WATER (CCW) | | | | |
| CCW Heat Exchangers | Y | 2 | 100% | |
| CCW Pumps | Y | 2 | 100% | |
| CCW Head Tank | Y | 1 | 100% | |
| Glycol type | Y | - | - | Propylene |
| CTG Cooler | Y | 4 | 50% | 2x50% per CTG |
| CTG Lube Oil Cooler | Y | 4 | 50% | 2x50% per CTG |
| BFP Heat Exchanger | Y | 2 | 100% | |
| HRSG Recirc Pump Heat Exchanger | Y | 2 | 100% | |
| COMPRESSED AIR | | | | |
| Air Compressors | Y | 3 | 50% | Air-Cooled, Oil-Free, Rotary Screw |
| Air Dryer/Filters | Y | 2 | 100% | Twin-Tower, Heatless Desiccant with pre- and after-filters |
| Wet Air Receiver | Y | 1 | 100% | |
| Dry Air Receiver | Y | 1 | 100% | |
| CONDENSATE SYSTEM | | | | |
| Condenser | Y | 1 | 100% | Single shell, single pressure, dual pass, divided waterbox, self-deaerating, downward exhaust steam surface condenser with tube sheets, expansion joints, steam turbine bypass sparger tubes and hotwell sparger, baffles and distribution piping, and drains flash box. |
| Condensate Pumps | Y | 3 | 50% | Vertical can-type |
| Gland Steam Condenser | Y | 1 | 100% | |
| CYCLE CHEMICAL FEED | | | | |
| Ammonia/Amine System | Y | 2 | 100% | |
| Phosphate System | Y | 6 | 50% | 3x50% per HRSG |
| Oxygen Scavenger System | Y | 2 | 100% | Includes 2x100% feed pumps |
| DEMINERALIZED WATER SYSTEM | | | | |
| Demineralized Water Transfer Pumps | Y | 2 | 100% | |
| Demineralized Water Storage Tank | Y | 1 | 100% | Field erected tank. Sizing based on steam cycle makeup and NOx water injection (while firing on fuel oil) |
| Reverse Osmosis (RO) Prefilters | Y | 2 | 100% | |
| Two-Pass RO Skids | Y | 2 | 100% | Skids include booster pumps |
| Mixed Bed Demineralization System | Y | 2 | 100% | |
| Clean in Place (CIP) System | Y | 1 | 100% | Includes tank, heater, cartridge filter and forwarding pump |
| Chemical Dosing Skids | Y | 9 | 100% | Each skid will have 2x100% or 3x50% redundancy. |
| Chemical Totes | Y | 9 | 100% | Chemicals as required based on source water quality. |
| FEEDWATER SYSTEM | | | | |
| Feedwater pumps | Y | 4 | 100% | With interstage bleed and control valves. Designed for max flow during full load operation with both combustion turbines and full steam turbine bypass. 2x100% for each HRSG (100% capacity defined by max unfired demand with STG bypass) |
| FIRE PROTECTION | | | | |
| Design Basis | Y | - | - | NFPA 850 recommended practice. |
| Insurer/special requirements | Y | - | - | FM Global |
| CTG Fire Protection | Y | - | - | CO2 and alarm |

**East Kentucky Power Cooperative
Cooper 2x1 Combined Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|--|
| Electrical Equipment Rooms / PCMs | Y | - | - | CO2 and alarm |
| Pump supply source(s) | Y | 2 | 100% | Electric motor and Diesel driven fire pump taking suction from the Service/Fire Water Storage Tank. Jockey pump to maintain header pressure and for small leaks. |
| Storage | Y | 1 | 100% | Combined Service/Fire Water Storage Tank fed from makeup water source |
| Fire loop | Y | - | - | Standalone fire loop |
| Sprinklers | Y | - | - | Provided for occupied buildings per NFPA 13 including admin/office areas, laboratories, restrooms and warehouse space. A Pre-action sprinkler system will be provided for STG bearing protection. A deluge spray system will be provided for STG lube oil storage tank and piping. |
| Foam System | N | - | - | |
| Smoke/heat detectors | Y | - | - | Where necessary or recommended by NFPA |
| Fire walls | Y | - | - | 2-hr fire walls where required by NFPA |
| FUEL OIL | | | | |
| Storage Tanks | Y | 2 | 50% | Field Erected tank sized for 72 hours of GT operation at full load. Additional tank capacity of 8 hours of continuous operator of backup diesel generator. Located within secondary containment structure |
| Transfer Pumps | Y | 3 | 100% | 1 x 100% for each combustion turbine unit with 1 x 100% common spare located near fuel oil tank. |
| Unloading Pumps | Y | 3 | 100% | Two (2) truck unloading stations. 1 x 100% unloading pump for each unloading station with 1 x 100% common spare. |
| Heating | Y | 3 | 50% | 3 x 50% inline electric heaters with recirculation system. Each heater sized for 50% of total plant fuel oil flow (all three units). |
| Duplex Filter | Y | 2 | 100% | One skid for each CTG (provided by CTG supplier) |
| Meter | Y | 2 | 100% | One for each CTG (provided by CTG supplier) |
| HVAC SYSTEMS | | | | |
| Building electric heaters, exhaust fans and intake louvers, air-conditioning | Y | TBD | 100% | As required for occupied buildings and electrical rooms |
| MAKE-UP WATER | | | | |
| Supply Source | - | - | - | Existing onsite clarified water fed from Cumberland River. Tie point will be downstream of existing clarifier |
| Clarified Water Transfer Pumps | Y | 2 | 100% | |
| Clarified Water Storage Tank | Y | 1 | 100% | |
| Clarified Water Ultra Filtration (UF) Filters | Y | 2 | 100% | |
| UF Backwash Tank | Y | 1 | 100% | |
| UF Backwash Pumps | Y | 2 | 100% | |
| Chemical Feed Pumps | Y | 8 | 100% | Chemicals as required based on source water quality |
| Chemical Totes | Y | 4 | 100% | |
| Service/Fire Water Storage | Y | 1 | 100% | Field erected tank, includes immersion heater(s) and insulation. Standpipe for dedicated fire water volume. |
| Service Water Transfer Pumps | Y | 2 | 100% | |
| NATURAL GAS | | | | |
| Off-site Pipeline | Y | - | - | New natural gas pipeline routed to site |
| Compression | N | - | - | |
| Metering & Regulation | Y | 2 | 100% | |
| Dew Point Heating | Y | 2 | 100% | 1 x 100% per CTG. Natural gas fired dew point heaters |
| Combustion Gas Turbine (CTG) | Y | 2 | 50% | Dual fuel rated (natural gas and ULSD) F-class gas turbine generators provided with inlet silencers, air filtration systems, low Nox combustors, lube oil systems, hydraulic oil systems, starting systems, acoustical enclosures with HVAC, controls, fire protection and fuel systems |
| Fuel Gas Filter Separator | Y | 2 | 100% | |
| Fuel Gas Metering Skid | Y | 2 | 100% | |
| Fuel Gas Pilot Fuel Filter Separator Skid | Y | 2 | 100% | |
| Fuel Gas Heater Skid | Y | 2 | 100% | |
| Fuel Gas Knockout Drum | Y | 2 | 100% | |
| Fuel Gas Filter Separator Skid | Y | 1 | 100% | Supply gas filter separator and drains tank |
| Fuel Gas Drains Tank | Y | 2 | 100% | 1x100% per CTG |
| NITROGEN | | | | |
| Nitrogen Bottles, Distribution Manifold | Y | 1 | 100% | |
| POTABLE WATER | | | | |
| Supply Source | Y | - | - | City tap, assumes sufficient pressure and flow |
| Emergency Eye Wash/Safety Showers | Y | 14 | 100% | |
| Potable Water Water Heater Tanks | Y | 7 | 100% | |
| SAMPLE ANALYSIS | | | | |
| Sample Analysis Panel | Y | 1 | 100% | Sample cycle make-up, reclaim water supply, condensate pump discharge and after chemical feed, HRSG water and steam, BFP suction and discharge, and wastewater discharge |
| Sample Analysis Cooler | Y | 1 | 100% | |
| SANITARY SEWER | | | | |
| Sanitary Lift Station | Y | 1 | 100% | Lift station includes 2x100% sewage pumps |
| Sanitary Sewer Pumps | Y | 2 | 100% | |
| Sanitary Treatment Facility | N | - | - | Reuse existing facility sanitary treatment |
| STEAM | | | | |
| Steam Turbine Generator (STG) | Y | 1 | 100% | Multi-stage, reheat, straight-condensing steam turbine including HP, reheat, and LP steam from HRSG's. Provided with stop and control valves, non-return valves, hydraulic control oil systems, lube oil systems, exhaust hood spray system, gland steam system including condenser with exhausters, turning gear, water induction prevention, and turbine control system with DCS interface |
| STG Atmospheric Drains Tank | Y | 1 | 100% | |
| Heat Recovery Steam Generator (HRSG) | Y | 2 | 50% | Triple pressure level, reheat, natural circulation type with horizontal gas turbine exhaust flow through vertical tube heat transfer sections. Includes SCR and CO/VOC catalysts. Self-supported stacks with ports for emission monitoring, platforms and ladder access. Water chemistry controlled via continuous blowdown and chemical addition as required. |
| Turbine Gland Steam Condenser Module | Y | 1 | 100% | |
| WASTEWATER | | | | |

**East Kentucky Power Cooperative
Cooper 2x1 Combined Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|---|
| Contaminated Wastewater | Y | - | - | Drains for areas around equipment that could be contaminated with oil will be directed through an oil/water separator. |
| Oil/Water Separator (OWS) | Y | 1 | 100% | OWS includes 2x100% pumps. Effluent discharged to existing outfall |
| Plant Drains Sump Pumps | Y | 7 | 100% | Sumps and sump pumps as required |
| Washwater/False Start Drains Tank | Y | 2 | 100% | 1x100% per CTG |
| Blowdown/Recycle Tank | Y | 1 | 100% | Recover steam drum blowdown and recycle into influent water treatment system |
| Recycle Pumps | Y | 2 | 100% | |
| CATHODIC PROTECTION | | | | |
| Underground Steel Piping | Y | - | - | Cathodic protection system will be galvanic anode type, if required. |
| Underground Steel Tanks | Y | - | - | Coated with sacrificial anodes, if required. |
| DEMOLITION | Y | - | - | Existing coal yard equipment and foundations will be demolished as required to make room for new CCGT facility |
| CONTROLS | | | | |
| Equipment Control | | | | |
| CTG | Y | - | - | Control system provided by equipment OEM with local HMI for each CTG |
| STG | Y | - | - | Control system provided by equipment OEM with local HMI |
| Medium Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Motor Control Centers | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Low Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Plant Control System | Y | - | - | Provided system will link all CTG and STG controllers and HMI application servers. Provided with redundant ethernet to application servers. |
| Plant Historian | Y | - | - | |
| Offsite Interfaces | Y | - | - | Dispatching, OEM Monitoring, EKPC Monitoring |
| Automatic Generation Control | | | | |
| Distributed Control System (DCS) | Y | 1 | 100% | Balance of Plant controls same as CTG and STG control for Siemens. Separate DCS would be needed for GE turbines. |
| Vibration monitoring | | | | |
| CTG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| STG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| BOP Critical and High Speed Motors | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| Plant Simulator | Y | - | - | EKPC to confirm. |
| Digital Bus | | | | |
| Foundation Fieldbus | N | - | - | |
| Remote I/O | Y | - | - | |
| Instrumentation | | | | |
| Transmitters | Y | - | - | |
| HART | Y | - | - | Install tri-loops on valves for feedback. |
| Performance Testing | Y | - | - | |
| Meteorological Station | N | - | - | |
| Continuous Emissions Monitoring System | | | | |
| | Y | 2 | 100% | 1x100% per stack. Datalink to DCS |
| Relaying Data Link | | | | |
| | Y | - | - | Redundant relay communications network for protection and control. See Equipment Control section for equipment / relay interfaces to the control system. |
| Communication | | | | |
| | Y | - | - | Datalinks for Battery Monitoring, Gas Yard, Gas Compressors/Dewpoint Heaters, Air Compressors, CEMS |
| Dispatching | Y | - | - | Automatic Generation Control through RTU communication |
| Off site monitoring/administrations | Y | - | - | OEM for Turbine Controller Remote Connection |
| Switchyard | Y | - | - | Communication Interface with Switchyard RTU |
| Internal plant | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| External | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| NERC CIP Requirements | | | | |
| | Y | - | - | EKPC to confirm. E.g. CIP low, medium, etc. |
| HMI | Y | - | - | Stand Alone Controllers with local HMI's. Plant Control HMI located in New Control Room, Admin DCS Room and Switchgear building. |
| ELECTRICAL | | | | |
| Generator Step-Up Transformers: | | | | |
| Gas Turbine | Y | 2 | 100% | 1x100% for each CTG |
| Steam Turbine | Y | 1 | 100% | |
| Auxiliary/Reserve Transformers: | | | | |
| Gas Turbine | Y | 2 | 100% | 1x100% for each CTG |
| Generator Buses: | | | | |
| Gas Turbine | Y | 2 | 100% | Isolated Phase Bus: 1x100% for each CTG |
| Steam Turbine | Y | 1 | 100% | Isolated Phase Bus: 1x100% for STG |
| Generator Circuit Breakers: | | | | |
| Gas Turbine | Y | 2 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Steam Turbine | Y | 1 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Blackstart Generator(s) and Capability | | | | |
| | N | - | - | |
| Electrical Equipment Enclosures: | | | | |
| | Y | - | - | Base scope will house electrical equipment inside power building, ACC building, or water treatment building. |
| Switchgear: | | | | |
| | | | | Separate PCM for cooling tower |
| 4160V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| 480V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| Motor Control Centers: | | | | |
| 480 V MCCs | Y | - | - | Rated for the operating load |
| Emergency Power: | | | | |
| Uninterruptible Power (UPS) | Y | - | - | A single Balance of Plant UPS system will be provided for the STG and BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| DC System | Y | - | - | A single Balance of Plant DC system will be provided for the STG and BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| Standby Diesel Generator | Y | - | - | Standby diesel generator rated for OEM and BOP Essential operating loads as well as heat trace to maintaining a safe shutdown condition. |
| Stand Alone Control Systems | | | | |

**East Kentucky Power Cooperative
Cooper 2x1 Combined Cycle
Scope Assumptions Matrix**



| | | Y/N | Number | % Capacity (per Unit) | Notes |
|---|--|-----|--------|--------------------------|--|
| | Fire Protection/Detection | Y | - | - | See fire protection section in Mechanical for details |
| | Plant HVAC | Y | - | - | See HVAC section in Mechanical for details |
| | Building/Site Security | Y | - | - | |
| | Plant Communications | Y | - | - | |
| On-Line Battery Monitoring: | | Y | - | - | |
| Lighting | | | | | |
| | Normal | Y | - | - | LED-lighting; lighting required for new road and plant buildings. |
| | Emergency Egress | Y | - | - | Local battery pack fixtures will be provided for emergency egress. |
| Grounding | | Y | - | - | Brownfield site. New grounding grid with ties to the existing plant grid as applicable. |
| Lightning Protection | | Y | - | - | A UL Master Label will be provided for the new facility. |
| Freeze Protection | | Y | - | - | Heat tracing designed to maintain 40F for fluids subject to freezing based on size and service |
| Electrical Studies: | | | | | |
| | Load Flow, voltage drop, short circuit | Y | - | - | Identify equipment and bus loading, motor terminal voltages and available fault currents at each voltage level |
| | Protective coordination/relay settings | Y | - | - | |
| | Arc Flash | Y | - | - | |
| Cabling | | Y | - | - | Cable tray and field routed conduit above grade, duct bank below grade |
| Transmission / Interconnection: | | N | - | - | Per EKPC |
| CIVIL/STRUCTURAL | | | | | |
| Existing Facilities | | Y | - | - | Brownfield site. Tie into existing Cooper system (roads, storm drainage). Topographic survey of the plant areas will be required. |
| Layout Considerations | | Y | - | - | Reuse part of existing infrastructure and road from previous coal plant construction |
| Disposal of Spoils | | - | - | - | Excess spoils will be disposed of on-site, used for fill if possible. No hazardous materials accounted for in project estimate. |
| Soils Conditions / Stability | | - | - | - | New combined cycle located in coal yard area. No geotechnical information provided for area. A geotechnical investigation will be needed to confirm stability requirements. |
| Soil Improvement | | N | - | - | No soil improvement is assumed |
| Subsurface Rock | | N | - | - | Assume no rock excavation required. |
| Subsurface water | | N | - | - | No dewatering included. |
| Cut/Fill | | - | - | - | Use existing site materials to grade the site and avoid off-site borrow. |
| Disposal of debris | | - | - | - | Disposed of on-site. However, debris from the existing coal yard foundation demolition and existing equipment demolition would have to be transported to a permitted facility or the facility on-site would have to be permitted for this use. |
| Permanent Stormwater | | - | - | - | Existing. New surface water drainage ditches and piping to collect and direct to offsite outfall. Regrading as required to follow existing drainage paths. |
| Construction Stormwater | | - | - | - | Erosion control will be in accordance with state and local guidelines and regulations and will include best management practices such as silt fence, rock check dams, slope protection, construction exits, and stormwater pond(s) for construction and permanent. A SWPPP will be prepared. |
| Roads | | N | - | - | Existing plant roads to allow for deliveries via truck. |
| Surfacing | | - | - | - | Main access roads shall be paved. Maintenance roads and areas will be covered with crushed rock. Other areas top soil and seeded. |
| Soil Bearing Capacity | | - | - | - | Soil bearing capacity not available. To be determined by geotechnical investigation. Foundation types assumed as noted below based on an allowable bearing capacity of approximately 2,500 psf. |
| Foundation type | | - | - | - | Assume CTG, STG, HRSG, Cooling Tower, and Generation Building will be pile-supported. All other equipment/structures will be supported on shallow foundations (mats or footings). A geotechnical investigation will be needed to confirm these assumptions. |
| Transformer Containment | | - | - | - | Containment for oil-filled transformer will be provided with an open pit design. |
| Demolition (Foundation) | | Y | - | - | See "Disposal of debris" and "Disposal of Spoils" sections above. |
| Enclosures | | | | | |
| | Generation Building | Y | 1 | 100% | Building housing CTG, HRSG, STG, and Aux Boiler (including control room, warehouse space, administrative space with offices, and machine shop) |
| | Water Treatment Building | Y | 1 | 100% | Building cranes included for CTG and STG |
| | Cooling Tower Chemical Feed Enclosure | Y | 1 | 100% | Building housing water treatment equipment and fire water pumps |
| | Electrical (see electrical section) | Y | - | - | Building to house Cooling Tower chemical feed equipment |
| | Warehouse/Admin Facilities | Y | 1 | 100% | |
| | Maintenance Shops | Y | 1 | 100% | |
| Maintenance cranes | | Y | - | - | |
| Guardshack | | N | - | - | Existing Cooper guardshack used. |
| Site Security | | - | - | - | Included in Owner's costs |
| Landscaping | | - | - | - | Minimal landscaping included. Disturbed areas will be seeded for erosion control. |
| Fence | | N | - | - | Assume existing perimeter security fence is adequate for new plant |
| CONSTRUCTION | | | | | |
| Utilities | | | | | |
| | Power | Y | - | - | Construction power from existing Cooper facility |
| | Communication | Y | - | - | Tie-in to existing system |
| | Construction Water | Y | - | - | Tie-in to existing Cooper facility service water system |
| | Potable Water | Y | - | - | Tie-in to existing Cooper facility potable water system |
| | Sanitary | Y | - | - | Portable facilities provided by construction contractors |
| Parking | | Y | - | - | New permanent parking adjacent to Generation building and Water Treatment building. Temporary construction parking to be identified. |
| Gate Entry | | | | | |
| | Main | - | - | - | Existing Cooper guard shack. |
| | Personnel/Craft | - | - | - | Existing Cooper main gate and guard shack. |
| | Delivery | - | - | - | New slide gate for construction. |
| Construction Field Office / Trailers | | | | | |
| | Owner | Y | - | - | Trailers in Owners Costs. |
| | Engineer | Y | - | - | Trailers in Owners Costs. |
| | Vendors | Y | - | - | Trailers in Owners Costs. |
| | Contractors | Y | - | - | Trailers in Owners Costs. |
| | Site Services | Y | - | - | Trailers in Owners Costs. |

**East Kentucky Power Cooperative
Cooper 2x1 Combined Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|--|
| Laydown area | Y | - | - | On site areas to be identified |
| Warehouses | Y | - | - | Existing warehouse is full; Contractor will provide necessary storage space during construction. |
| OWNER COSTS / MISC. | | | | |
| Permits | | | | |
| See Permit Matrix | Y | - | - | EKPC w/ BMCD Support. |
| Owner's Costs | | | | |
| Project Development | Y | - | - | Allowance to be included |
| Owner's Operations Personnel | Y | - | - | Allowance to be included |
| Owner's Project Management | Y | - | - | Allowance to be included |
| Owner's Engineer | N | - | - | |
| Owner's Legal Counsel | Y | - | - | Allowance to be included |
| Political Concessions / Area Development Fees | Y | - | - | Allowance to be included |
| Permitting & License Fees | Y | - | - | Allowance to be included |
| Land | N | - | - | Brownfield, existing |
| Water Rights Costs | Y | - | - | Allowance to be included |
| Water Infrastructure and Supply to Site | N | - | - | Existing |
| Natural Gas Infrastructure and Supply to Site | Y | - | - | Allowance to be included |
| Labor Camp | N | - | - | |
| Permanent Plant Operating Spare Parts | Y | - | - | Allowance to be included |
| Maintenance Tools & Equipment | Y | - | - | Allowance to be included |
| Permanent Plant Equipment & Furnishings | Y | - | - | Allowance to be included |
| Sales Tax | Y | - | - | Sales tax is excluded, other than for non-permanent consumables and supplies |
| Escalation | Y | - | - | Allowance to be included |
| Owner's Contingency | Y | - | - | Allowance to be included |
| Interest During Construction | N | - | - | Excluded |
| Temporary Utilities | Y | - | - | Included in EPC costs |
| Startup Testing Fuels and Consumables | Y | - | - | Allowance to be included |
| Operator training | Y | - | - | Allowance to be included |
| Site Security | Y | - | - | Allowance to be included |
| GENERAL ASSUMPTIONS | | | | |
| Reuse of Existing Equipment and Systems | Y | - | - | Existing equipment, piping, cables, etc. are in adequate working order and can be reused without modifications |
| EXCLUSIONS | | | | |
| Taxes | - | - | - | Sales, use, gross receipts, property, and other types. |
| Insurance | - | - | - | All insurance other than General Liability being carried as a project cost |
| Sound abatement above normal supply | - | - | - | |
| Aesthetic landscaping other than erosion control | - | - | - | |
| High escalation associated with extreme market conditions | - | - | - | |
| Financing fees | - | - | - | |
| Interest during construction | - | - | - | |

East Kentucky Power Cooperative
Tygart Creek Combined Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|-------------------------------------|-----|--------|--------------------------|---|
| GENERAL PROJECT INFORMATION | | | | |
| Project Description | - | - | - | New 3x1 dual fuel combined cycle combustion turbine power plant consisting of three (3) advanced F-class combustion turbines (CTGs), three (3) heat recovery steam generators (HRSGs), a single condensing steam turbine generator (STG), and an air-cooled condenser (ACC). The new CTGs, STG, HRSGs, and associated auxiliary equipment will be located indoors. |
| Project Location | - | - | - | Greenup County, KY. |
| Site Description | - | - | - | New greenfield site at Tygart Creek site #2. |
| Design Fuel | - | - | - | New tie to nearby natural gas pipeline at site with fuel oil backup (ultra low sulfur diesel) |
| Heat Rejection | - | - | - | New air-cooled condenser |
| Operation | - | - | - | Baseloaded with outages for maintenance |
| Capacity Factor | - | - | - | 90% |
| Contracting Approach | - | - | - | Multi-prime. |
| Labor | - | - | - | Union or Non-Union. |
| Project Liquidated Damages | - | - | - | Schedule and performance for each contract. |
| Project Bonding /LOC | - | - | - | 100% Bonding. |
| Project COD Dates | - | - | - | 2030 |
| Project Expansion | - | - | - | None |
| MECHANICAL SYSTEMS/EQUIPMENT | | | | |
| AQUEOUS AMMONIA SYSTEM | | | | |
| Ammonia Flow Control Skid | Y | 3 | 100% | One per HRSG. |
| Ammonia Forwarding Pump Skid | Y | 4 | 100% | One per HRSG plus common spare |
| Ammonia Storage Tank | Y | 1 | 100% | |
| Ammonia Unloading Skid | Y | 1 | 100% | |
| SCR Ammonia Distribution Grid | Y | 3 | 100% | One per HRSG. |
| SCR Catalyst | Y | 3 | 100% | |
| Detection | N | - | - | |
| AUXILIARY STEAM | | | | |
| Aux Steam Electric Superheater | Y | 1 | 100% | |
| Aux Boiler | Y | 1 | 100% | Natural gas-fired for plant startup |
| Aux Boiler Deaerator | Y | 1 | 100% | |
| Aux Boiler Blowdown Tank | Y | 1 | 100% | |
| Aux Boiler Forced Draft (FD) Fan | Y | 1 | 100% | |
| Aux Boiler Feedwater Pumps | Y | 2 | 100% | |
| Aux Boiler Sample Analysis Panel | Y | 2 | 100% | |
| CLOSED COOLING WATER (CCW) | | | | |
| Air-Cooled Heat Exchanger (ACHE) | Y | 1 | 100% | |
| CCW Pumps | Y | 4 | 33% | |
| CCW Head Tank | Y | 1 | 100% | |
| Glycol type | Y | - | - | Propylene |
| CTG Cooler | Y | 6 | 50% | |
| CTG Lube Oil Cooler | Y | 3 | 100% | |
| BFP Heat Exchanger | Y | 2 | 100% | |
| HRSG Recirc Pump Heat Exchanger | Y | 3 | 100% | |
| COMPRESSED AIR | | | | |
| Air Compressors | Y | 3 | 50% | Air-Cooled, Oil-Free, Rotary Screw |
| Air Dryer/Filters | Y | 2 | 100% | Twin-Tower, Heatless Desiccant with pre- and after-filters |
| Wet Air Receiver | Y | 1 | 100% | |
| Dry Air Receiver | Y | 1 | 100% | |
| CONDENSATE SYSTEM | | | | |
| | | | | Single pressure, two-stage design, sized for full load operation at max ambient conditions as defined by Heat Balance, and will include provisions for HRSG warm-up and 100% steam bypass. Includes: Hot box connection with distribution ducts, motor-actuated sectionalizing valves and drains, fin tube bundles and tube cleaning system, 2-100% liquid ring vacuum pumps, condensate collection headers, steel support structure, two-speed fans, fan deck, platforms and stairs |
| Air-Cooled Condenser (ACC) | Y | 1 | 100% | |
| ACC Condensate Storage Tank | Y | 1 | 100% | |
| Condensate Pumps | Y | 3 | 50% | Vertical can-type |
| Gland Steam Condenser | Y | 1 | 100% | |
| Steam Turbine Flash Tank | Y | 1 | 100% | |
| CYCLE CHEMICAL FEED | | | | |
| Ammonia/Amine System | Y | 3 | 100% | |
| Phosphate System | Y | 9 | 50% | 3x50% per HRSG |
| Oxygen Scavenger System | Y | 3 | 100% | Includes 3x100% feed pumps |
| DEMINERALIZED WATER SYSTEM | | | | |
| Demineeralized Water Transfer Pumps | Y | 3 | 100% | |
| Demineeralized Water Storage Tank | Y | 1 | 100% | Field erected tank. Sizing based on steam cycle makeup, evaporative cooler makeup, and NOx water injection (while firing on fuel oil) |
| Reverse Osmosis (RO) Prefilters | Y | 2 | 100% | |
| Two-Pass RO Skids | Y | 2 | 100% | Skids include booster pumps |
| Mixed Bed Demineralization System | Y | 2 | 100% | |
| Clean in Place (CIP) System | Y | 1 | 100% | Includes tank, heater, cartridge filter and forwarding pump |
| Chemical Dosing Skids | Y | 9 | 100% | Each skid will have 2x100% or 3x50% redundancy. |
| Chemical Totes | Y | 9 | 100% | Chemicals as required based on source water quality. |
| FEEDWATER SYSTEM | | | | |
| | | | | With interstage bleed and control valves. Designed for max flow during full load operation with both combustion turbines and full steam turbine bypass. |
| Feedwater pumps | Y | 6 | 100% | 2x100% for each HRSG (100% capacity defined by max unfired demand with STG bypass) |
| FIRE PROTECTION | | | | |
| Design Basis | Y | - | - | NFPA 850 recommended practice. |
| Insurer/special requirements | Y | - | - | FM Global |
| CTG Fire Protection | Y | - | - | CO2 and alarm |
| Electrical Equipment Rooms / PCMs | Y | - | - | CO2 and alarm |

**East Kentucky Power Cooperative
Tygarts Creek Combined Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|--|
| Pump supply source(s) | Y | 2 | 100% | Electric motor and Diesel driven fire pump taking suction from the Service/Fire Water Storage Tank. Jockey pump to maintain header pressure and for small leaks. |
| Storage | Y | 1 | 100% | Combined Service/Fire Water Storage Tank fed from makeup water source |
| Fire loop | Y | - | - | Standalone fire loop |
| Sprinklers | Y | - | - | Provided for occupied buildings per NFPA 13 including admin/office areas, laboratories, restrooms and warehouse space. A Pre-action sprinkler system will be provided for STG bearing protection. A deluge spray system will be provided for STG lube oil storage tank and piping. |
| Foam System | N | - | - | |
| Smoke/heat detectors | Y | - | - | Where necessary or recommended by NFPA |
| Fire walls | Y | - | - | 2-hr fire walls where required by NFPA |
| FUEL OIL | | | | |
| Storage Tank | Y | 2 | 50% | Field Erected tanks sized for 72 hours of GT operation at full load. Additional tank capacity of 8 hours of continuous operation of backup diesel generator. |
| Transfer Pumps | Y | 4 | 100% | Located within secondary containment structure 1 x 100% for each combustion turbine unit with 1 x 100% common spare located near fuel oil tank. |
| Unloading Pumps | Y | 3 | 100% | Two (2) truck unloading stations. 1 x 100% unloading pump for each unloading station with 1 x 100% common spare. |
| Heating | Y | 4 | 33% | 4 x 33% inline electric heaters with recirculation system. Each heater sized for one CTG. |
| Duplex Filter | Y | 3 | 100% | One skid for each CTG (provided by CTG supplier) |
| Meter | Y | 3 | 100% | One for each CTG (provided by CTG supplier) |
| HVAC SYSTEMS | | | | |
| Building electric heaters, exhaust fans and intake louvers, air-conditioning | Y | TBD | 100% | As required for occupied buildings and electrical rooms |
| MAKE-UP WATER | | | | |
| Supply Source | - | - | - | New well water for supply |
| Well Water Pumps | Y | 2 | 100% | |
| Well Water Strainer/Filter Skid | Y | 1 | 100% | |
| Raw Water Storage Tank | Y | 1 | 100% | |
| Raw Water Ultra Filtration (UF) Filters | Y | 2 | 100% | |
| UF Backwash Tank | Y | 1 | 100% | |
| UF Backwash Pumps | Y | 2 | 100% | |
| Chemical Feed Pumps | Y | 8 | 100% | Chemicals as required based on source water quality |
| Chemical Totes | Y | 4 | 100% | |
| Service/Fire Water Storage Tank | Y | 1 | 100% | Field erected tank, includes immersion heater(s) and insulation. Standpipe for dedicated fire water volume. |
| Service Water Transfer Pumps | Y | 2 | 100% | |
| NATURAL GAS | | | | |
| Off-site Pipeline | N | - | - | Natural gas available at an interconnection at/near the site boundary. |
| Compression | N | - | - | Assume sufficient pressure available |
| Metering & Regulation | Y | 2 | 100% | |
| Dew Point Heating | Y | 3 | 100% | 1 x 100% per CTG. Natural gas fired dew point heaters |
| Combustion Gas Turbine (CTG) | Y | 3 | 33% | Dual fuel rated (natural gas and ULSD) F-class gas turbine generators provided with inlet silencers, air filtration systems, low Nox combustors, lube oil systems, hydraulic oil systems, starting systems, acoustical enclosures with HVAC, controls, fire protection and fuel systems |
| Fuel Gas Filter Separator | Y | 3 | 100% | |
| Fuel Gas Metering Skid | Y | 3 | 100% | |
| Fuel Gas Pilot Fuel Filter Separator Skid | Y | 3 | 100% | |
| Fuel Gas Heater Skid | Y | 3 | 100% | |
| Fuel Gas Knockout Drum | Y | 3 | 100% | |
| Fuel Gas Filter Separator Skid | Y | 1 | 100% | Supply gas filter separator and drains tank |
| Fuel Gas Drains Tank | Y | 3 | 100% | 1x100% per CTG |
| NITROGEN | | | | |
| Nitrogen Bottles, Distribution Manifold | Y | 1 | 100% | |
| POTABLE WATER | | | | |
| Supply Source | Y | - | - | City tap, assumes sufficient pressure and flow |
| Emergency Eye Wash/Safety Showers | Y | TBD | 100% | |
| Potable Water Water Heater Tanks | Y | TBD | 100% | |
| SAMPLE ANALYSIS | | | | |
| Sample Analysis Panel | Y | 1 | 100% | Sample cycle make-up, reclaim water supply, condensate pump discharge and after chemical feed, HRSG water and steam, BFP suction and discharge, and wastewater discharge |
| Sample Analysis Cooler | Y | 1 | 100% | |
| SANITARY SEWER | | | | |
| Sanitary Lift Station | Y | 2 | 100% | Lift station includes 2x100% sewage pumps |
| Sanitary Sewer Pumps | Y | 4 | 100% | |
| Sanitary Treatment Facility | Y | 1 | 100% | Biotreatment of sanitary waste prior to effluent to existing wastewater outfall |
| STEAM | | | | |
| Steam Turbine Generator (STG) | Y | 1 | 100% | Multi-stage, reheat, straight-condensing steam turbine including HP, reheat, and LP steam from HRSG's. Provided with stop and control valves, non-return valves, hydraulic control oil systems, lube oil systems, exhaust hood spray system, gland steam system including condenser with exhausters, turning gear, water induction prevention, and turbine control system with DCS interface |
| STG Atmospheric Drains Tank | Y | 1 | 100% | |
| Heat Recovery Steam Generator (HRSG) | Y | 3 | 33% | Triple pressure level, reheat, natural circulation type with horizontal gas turbine exhaust flow through vertical tube heat transfer sections. Includes SCR and CO/VOC catalysts. Self-supported stacks with ports for emission monitoring, platforms and ladder access. |
| Turbine Gland Steam Condenser Module | Y | 1 | 100% | Water chemistry controlled via continuous blowdown and chemical addition as required. |
| WASTEWATER | | | | |

**East Kentucky Power Cooperative
Tygarts Creek Combined Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|---|
| Contaminated Wastewater | Y | - | - | Drains for areas around equipment that could be contaminated with oil will be directed through an oil/water separator. |
| Oil/water Separator (OWS) | Y | 1 | 100% | OWS includes 2x100% pumps. Effluent discharged to existing outfall |
| Plant Drains Sump Pumps | Y | 8 | 100% | Sumps and sump pumps as required |
| Washwater/False Start Drains Tank | Y | 3 | 100% | 1x100% per CTG |
| Blowdown/Recycle Tank | Y | 3 | 100% | Recover steam drum blowdown and recycle into influent water treatment system |
| Recycle Pumps | Y | 2 | 100% | |
| CATHODIC PROTECTION | | | | |
| Underground Steel Piping | Y | - | - | Cathodic protection system will be galvanic anode type, if required. |
| Underground Steel Tanks | Y | - | - | Coated with sacrificial anodes, if required. |
| DEMOLITION | Y | - | - | Existing buried utilities for coal plant will be demolished as required for new design |
| CONTROLS | | | | |
| Equipment Control | | | | |
| CTG | Y | - | - | Control system provided by equipment OEM with local HMI for each CTG |
| STG | Y | - | - | Control system provided by equipment OEM with local HMI |
| Medium Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Motor Control Centers | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Low Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Plant Control System | Y | - | - | Provided system will link all CTG and STG controllers and HMI application servers. Provided with redundant ethernet to application servers. |
| Plant Historian | Y | - | - | |
| Offsite Interfaces | Y | - | - | Dispatching, OEM Monitoring, EKPC Monitoring |
| Automatic Generation Control | | | | |
| Distributed Control System (DCS) | Y | 1 | 100% | Balance of Plant controls same as CTG and STG control for Siemens. Separate DCS would be needed for GE turbines. |
| Vibration monitoring | | | | |
| CTG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| STG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| BOP Critical and High Speed Motors | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| Plant Simulator | Y | - | - | EKPC to confirm. |
| Digital Bus | | | | |
| Foundation Fieldbus | N | - | - | |
| Remote I/O | Y | - | - | |
| Instrumentation | | | | |
| Transmitters | Y | - | - | |
| HART | Y | - | - | Install tri-loops on valves for feedback. |
| Performance Testing | Y | - | - | |
| Meteorological Station | N | - | - | |
| Continuous Emissions Monitoring System | Y | 3 | 100% | 1x100% per stack. Datalink to DCS |
| Relaying Data Link | Y | - | - | Redundant relay communications network for protection and control. See Equipment Control section for equipment / relay interfaces to the control system. |
| Communication | Y | - | - | Datalinks for Battery Monitoring, Gas Yard, Gas Compressors/Dewpoint Heaters, Air Compressors, CEMS |
| Dispatching | Y | - | - | Automatic Generation Control through RTU communication |
| Off site monitoring/administrations | Y | - | - | OEM for Turbine Controller Remote Connection |
| Switchyard | Y | - | - | Communication Interface with Switchyard RTU |
| Internal plant | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| External | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| NERC CIP Requirements | Y | - | - | EKPC to confirm. E.g. CIP low, medium, etc. |
| HMI | Y | - | - | Stand Alone Controllers with local HMI's. Plant Control HMI located in New Control Room, Admin DCS Room and Switchgear building. |
| ELECTRICAL | | | | |
| Generator Step-Up Transformers: | | | | |
| Gas Turbine | Y | 3 | 100% | 1x100% for each CTG |
| Steam Turbine | Y | 1 | 100% | |
| Auxiliary/Reserve Transformers: | | | | |
| Gas Turbine | Y | 3 | 100% | 1x100% for each CTG |
| Generator Buses: | | | | |
| Gas Turbine | Y | 3 | 100% | Isolated Phase Bus: 1x100% for each CTG |
| Steam Turbine | Y | 1 | 100% | Isolated Phase Bus: 1x100% for STG |
| Generator Circuit Breakers: | | | | |
| Gas Turbine | Y | 3 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Steam Turbine | Y | 1 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Blackstart Generator(s) and Capability | N | - | - | |
| Electrical Equipment Enclosures: | Y | - | - | Base scope will house electrical equipment inside power building, ACC building, or water treatment building. |
| Switchgear: | | | | |
| 4160V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| 480V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| Motor Control Centers: | | | | |
| 480 V MCCs | Y | - | - | Rated for the operating load |
| Emergency Power: | | | | |
| Uninterruptible Power (UPS) | Y | - | - | A single Balance of Plant UPS system will be provided for the STG and BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| DC System | Y | - | - | A single Balance of Plant DC system will be provided for the STG and BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| Standby Diesel Generator | Y | - | - | Standby diesel generator rated for OEM and BOP Essential operating loads as well as heat trace to maintaining a safe shutdown condition. |
| Stand Alone Control Systems | | | | |
| Fire Protection/Detection | Y | - | - | See fire protection section in Mechanical for details |
| Plant HVAC | Y | - | - | See HVAC section in Mechanical for details |

East Kentucky Power Cooperative
Tygarts Creek Combined Cycle
Scope Assumptions Matrix



| | | Y/N | Number | % Capacity (per Unit) | Notes |
|--|---|-----|--------|--------------------------|--|
| | Building/Site Security | Y | - | - | |
| | Plant Communications | Y | - | - | |
| | On-Line Battery Monitoring: | Y | - | - | |
| | Lighting | | | | |
| | Normal | Y | - | - | LED-lighting; lighting required for new road and plant buildings. |
| | Emergency Egress | Y | - | - | Local battery pack fixtures will be provided for emergency egress. |
| | Grounding | Y | - | - | New grounding grid |
| | Lightning Protection | Y | - | - | A UL Master Label will be provided for the new facility. |
| | Freeze Protection | Y | - | - | Heat tracing designed to maintain 40F for fluids subject to freezing based on size and service |
| | Electrical Studies: | | | | |
| | Load Flow, voltage drop, short circuit | Y | - | - | Identify equipment and bus loading, motor terminal voltages and available fault currents at each voltage level |
| | Protective coordination/relay settings | Y | - | - | |
| | Arc Flash | Y | - | - | |
| | Cabling | Y | - | - | Cable tray and field routed conduit above grade, duct bank below grade |
| | Transmission / Interconnection: | N | - | - | Per EKPC |
| | CIVIL/STRUCTURAL | | | | |
| | Existing Facilities | N | - | - | Greenfield site. Not applicable |
| | Layout Considerations | Y | - | - | Tie-ins to new gas pipeline and transmission. |
| | Disposal of Spoils | - | - | - | Excess spoils will be disposed of on-site, used for fill if possible. No hazardous materials accounted for in project estimate. |
| | Soils Conditions / Stability | - | - | - | No geotechnical information known at this time. Geotech will need to be completed to confirm. No special considerations included at this time. |
| | Soil Improvement | N | - | - | No soil improvement is assumed |
| | Subsurface Rock | N | - | - | Assume no rock excavation required. |
| | Subsurface water | N | - | - | No dewatering included. |
| | Cut/Fill | - | - | - | Use existing site materials to grade the site and avoid off-site borrow. |
| | Disposal of debris | - | - | - | Disposed of on-site. |
| | Permanent Stormwater | - | - | - | New stormwater to be collected in ditches and routed to new permitted outfall |
| | Construction Stormwater | - | - | - | Erosion control will be in accordance with state and local guidelines and regulations and will include best management practices such as silt fence, rock check dams, slope protection, construction exits, and stormwater pond(s) for construction and permanent. A SWPPP will be prepared. |
| | Roads | Y | - | - | All new roads for site |
| | Surfacing | - | - | - | Main access roads shall be paved. Maintenance roads and areas will be covered with crushed rock. Other areas top soil and seeded. |
| | Soil Bearing Capacity | - | - | - | Soil bearing capacity not available. To be determined by geotechnical investigation. Foundation types assumed as noted below based on an allowable bearing capacity of approximately 2,500 psf. |
| | Foundation type | - | - | - | Assume CTG, STG, HRSG, ACC, and Generation Building will be pile-supported. All other equipment/structures will be supported on shallow foundations (mats or footings). A geotechnical investigation will be needed to confirm these assumptions. |
| | Transformer Containment | - | - | - | Containment for oil-filled transformer will be provided with an open pit design. |
| | Enclosures | | | | |
| | Generation Building | Y | 1 | 100% | Building housing CTG, HRSG, STG, and Aux Boiler (including control room, warehouse space, administrative space with offices, and machine shop) |
| | Water Treatment Building | Y | 1 | 100% | Building housing water treatment equipment and fire water pumps |
| | ACC Building | Y | 1 | 100% | Building to house ACC equipment and electrical |
| | Electrical (see electrical section) | Y | - | - | |
| | Warehouse/Admin Facilities | Y | 1 | 100% | |
| | Maintenance Shops | Y | 1 | 100% | |
| | Maintenance cranes | Y | - | - | |
| | Guardshack | Y | - | - | New guard shack |
| | Site Security | - | - | - | Included in Owner's costs |
| | Landscaping | - | - | - | Minimal landscaping included. Disturbed areas will be seeded for erosion control. |
| | Fence | Y | - | - | New fence around perimeter of new plant facilities |
| | CONSTRUCTION | | | | |
| | Utilities | | | | |
| | Power | Y | - | - | Construction power from aux. generators |
| | Communication | Y | - | - | Cellular |
| | Construction Water | Y | - | - | Tie into new well |
| | Potable Water | Y | - | - | Trucked until City potable tie-in connection is commissioned |
| | Sanitary | Y | - | - | Portable facilities provided by construction contractors |
| | Parking | Y | - | - | New permanent parking adjacent to Generation building and Water Treatment building. Temporary construction parking to be identified. |
| | Gate Entry | | | | |
| | Main | - | - | - | New guard shack |
| | Personnel/Craft | - | - | - | New main gate/construction entrance |
| | Delivery | - | - | - | New slide gate for construction |
| | Construction Field Office / Trailers | | | | |
| | Owner | Y | - | - | Trailers in Owners Costs. |
| | Engineer | Y | - | - | Trailers in Owners Costs. |
| | Vendors | Y | - | - | Trailers in Owners Costs. |
| | Contractors | Y | - | - | Trailers in Owners Costs. |
| | Site Services | Y | - | - | Trailers in Owners Costs. |
| | Laydown area | Y | - | - | On site areas to be identified |
| | Warehouses | Y | - | - | Contractor will provide necessary storage space during construction. |
| | OWNER COSTS / MISC. | | | | |
| | Permits | | | | |
| | See Permit Matrix | Y | - | - | EKPC w/ BMCD Support. |
| | Owner's Costs | | | | |
| | Project Development | Y | - | - | Allowance to be included |
| | Owner's Operations Personnel | Y | - | - | Allowance to be included |

East Kentucky Power Cooperative
Tygarts Creek Combined Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|--|
| Owner's Project Management | Y | - | - | Allowance to be included |
| Owner's Engineer | N | - | - | |
| Owner's Legal Counsel | Y | - | - | Allowance to be included |
| Political Concessions / Area Development Fees | Y | - | - | Allowance to be included |
| Permitting & License Fees | Y | - | - | Allowance to be included |
| Land | Y | - | - | Allowance to be included |
| Water Rights Costs | Y | - | - | Allowance to be included |
| Water Infrastructure and Supply to Site | Y | - | - | New well water for supply |
| Natural Gas Infrastructure and Supply to Site | N | - | - | Existing pipeline adjacent to site |
| Labor Camp | N | - | - | |
| Permanent Plant Operating Spare Parts | Y | - | - | Allowance to be included |
| Maintenance Tools & Equipment | Y | - | - | Allowance to be included |
| Permanent Plant Equipment & Furnishings | Y | - | - | Allowance to be included |
| Sales Tax | Y | - | - | Sales tax is excluded, other than for non-permanent consumables and supplies |
| Escalation | Y | - | - | Allowance to be included |
| Owner's Contingency | Y | - | - | Allowance to be included |
| Interest During Construction | N | - | - | Excluded |
| Temporary Utilities | Y | - | - | Included in EPC costs |
| Startup Testing Fuels and Consumables | Y | - | - | Allowance to be included |
| Operator training | Y | - | - | Allowance to be included |
| Site Security | Y | - | - | Allowance to be included |
| EXCLUSIONS | | | | |
| Taxes | - | - | - | Sales, use, gross receipts, property, and other types. |
| Insurance | - | - | - | All insurance other than General Liability being carried as a project cost |
| Sound abatement above normal supply | - | - | - | |
| Aesthetic landscaping other than erosion control | - | - | - | |
| High escalation associated with extreme market conditions | - | - | - | |
| Financing fees | - | - | - | |
| Interest during construction | - | - | - | |

**East Kentucky Power Cooperative
Smith Simple Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|---|
| GENERAL PROJECT INFORMATION | | | | |
| Project Description | - | - | - | New five (5) advanced F-class, dual-fuel rated, simple cycle combustion turbines (CTGs). The new CTGs and associated auxiliary equipment will be located indoors. |
| Project Location | - | - | - | Clark County, KY. |
| Site Description | - | - | - | Existing brownfield site at J. K. Smith Station. |
| Design Fuel | - | - | - | Existing natural gas pipeline at site with fuel oil backup (ultra low sulfur diesel) |
| Heat Rejection | - | - | - | N/A |
| Operation | - | - | - | Peaking |
| Capacity Factor | - | - | - | <35% |
| Contracting Approach | - | - | - | Multi-prime. |
| Labor | - | - | - | Union or Non-Union. |
| Project Liquidated Damages | - | - | - | Schedule and performance for each contract. |
| Project Bonding /LOC | - | - | - | 100% Bonding. |
| Project COD Dates | - | - | - | 2030 |
| Project Expansion | - | - | - | Future expansion into 2x1 combined cycle with two units located in existing coal plant area |
| MECHANICAL SYSTEMS/EQUIPMENT | | | | |
| CLOSED COOLING WATER (CCW) | | | | |
| Air-Cooled Heat Exchanger (ACHE) | Y | 5 | 100% | 1 x 100% per unit |
| CCW Pumps | Y | 10 | 100% | 2 x 100% per unit |
| CCW Expansion Tank | Y | 5 | 100% | 1 x 100% per unit |
| CTG Cooler | Y | 20 | 25% | 4 x 25% per unit |
| CTG Lube Oil Cooler | Y | 10 | 50% | 2 x 50% per unit |
| COMPRESSED AIR | | | | |
| Air Compressors | Y | 2 | 100% | Air-Cooled, Oil-Free, Rotary Screw |
| Air Dryer/Filters | Y | 2 | 100% | Twin-Tower, Heatless Desiccant with pre- and after-filters |
| Wet Air Receiver | Y | 1 | 100% | |
| Dry Air Receiver | Y | 1 | 100% | |
| Pulse Air Receivers | Y | 5 | 100% | 1 x 100% per unit |
| COMPRESSED GASES | | | | |
| Bulk CO2 Storage Skid | Y | 1 | 100% | Bulk storage vessel with condensing unit, vaporizer, and regulation |
| DEMINERALIZED WATER SYSTEM | | | | |
| Supply Source | - | - | - | Portable Demineralized Trailers |
| Demineralized Water Transfer Pumps | Y | 6 | 100% | 1 x 100% per unit with common spare |
| Demineralized Water Storage Tank | Y | 1 | 100% | Field erected tank. Sizing based on evaporative cooler makeup and NOx water injection (while firing on fuel oil) for all five new units |
| FIRE PROTECTION | | | | |
| Design Basis | Y | - | - | NFPA 850 recommended practice. |
| Insurer/special requirements | Y | - | - | FM Global |
| CTG Fire Protection | Y | - | - | CO2 and alarm |
| Electrical Equipment Rooms / PCMs | Y | - | - | CO2 and alarm |
| Pump supply source(s) | Y | 2 | 100% | Electric motor and Diesel driven fire pump taking suction from the Service/Fire Water Storage Tank. Jockey pump to maintain header pressure and for small leaks. |
| Storage | Y | 1 | 100% | Combined Service/Fire Water Storage Tank fed from makeup water source |
| Fire loop | Y | - | - | Extension of existing fire loop to encompass new units |
| Sprinklers | Y | - | - | Provided for occupied buildings per NFPA 13 including admin/office areas, laboratories, restrooms and warehouse space. |
| Foam System | N | - | - | |
| Smoke/heat detectors | Y | - | - | Where necessary or recommended by NFPA |
| Fire walls | Y | - | - | 2-hr fire walls where required by NFPA |
| FUEL OIL | | | | |
| Storage Tank | Y | 2 | 50% | Field Erected tank sized for 72 hours of GT operation at full load. Located within secondary containment structure |
| Forwarding Pumps | Y | 6 | 100% | 1 x 100% for each combustion turbine unit with 1 x 100% common spare located near fuel oil tank. |
| Unloading Pumps | Y | 3 | 100% | Two (2) truck unloading stations. 1 x 100% unloading pump for each unloading station with 1 x 100% common spare. |
| Transfer Pump | Y | 1 | 100% | Transfer diesel fuel to diesel fire pump day tank |
| Heating | Y | 3 | 50% | 3 x 50% inline electric heaters with recirculation system. Each heater sized for 50% of total plant fuel oil flow (all five new units). |
| Duplex Filter | Y | 5 | 100% | One skid for each CTG (provided by CTG supplier) |
| Meter | Y | 5 | 100% | One for each CTG (provided by CTG supplier) |
| HVAC SYSTEMS | | | | |
| Building electric heaters, exhaust fans and intake louvers, air-conditioning | Y | TBD | 100% | As required for occupied buildings and electrical rooms |
| MAKE-UP WATER | | | | |
| Supply Source | - | - | - | Existing onsite clarified water fed from Kentucky River. Tie point will be downstream of existing clarifier |
| Clarified Water Transfer Pumps | Y | 2 | 100% | |
| Clarified Water Storage Tank | Y | 1 | 100% | |
| Clarified Water Ultra Filtration (UF) Filters | Y | 2 | 100% | |
| UF Backwash Tank | Y | 1 | 100% | |
| UF Backwash Pumps | Y | 2 | 100% | |
| Chemical Feed Pumps | Y | 8 | 100% | Chemicals as required based on source water quality |
| Chemical Totes | Y | 4 | 100% | |
| Service/Fire Water Storage | Y | 1 | 100% | Field erected tank, includes immersion heater(s) and insulation. Standpipe for dedicated fire water volume. |
| Service Water Pumps | Y | 2 | 100% | |
| NATURAL GAS | | | | |
| Off-site Pipeline | N | - | - | Natural gas available at an interconnection at/near the site boundary. |
| Compression | N | - | - | Assume sufficient pressure available |
| Metering & Regulation | Y | 2 | 100% | |
| Dew Point Heating | Y | 5 | 100% | 1 x 100% per CTG. Natural gas fired dew point heaters |
| Combustion Gas Turbine (CTG) | Y | 5 | 100% | Dual fuel rated (natural gas and ULSD) F-class gas turbine generators provided with inlet silencers, air filtration systems, low Nox combustors, lube oil systems, hydraulic oil systems, starting systems, acoustical enclosures with HVAC, controls, fire protection and fuel systems |

East Kentucky Power Cooperative
Smith Simple Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|--|
| Fuel Gas Filter Separator | Y | 5 | 100% | 1 x 100% per CTG |
| Fuel Gas Metering Skid | Y | 5 | 100% | 1 x 100% per CTG |
| Fuel Gas Pilot Fuel Filter Separator Skid | Y | 5 | 100% | 1 x 100% per CTG |
| Fuel Gas Heater Skid | Y | 5 | 100% | 1 x 100% per CTG |
| Fuel Gas Knockout Drum | Y | 5 | 100% | 1 x 100% per CTG |
| Fuel Gas Filter Separator Skid | Y | 2 | 50% | Supply gas filter separator and drains tank |
| Fuel Gas Drains Tank | Y | 5 | 100% | 1 x 100% per CTG |
| POTABLE WATER | | | | |
| Supply Source | Y | - | - | City tap, assumes sufficient pressure and flow |
| Emergency Eye Wash/Safety Showers | Y | 8 | 100% | |
| Potable Water Instantaneous Heaters | Y | 7 | 100% | |
| Potable Water Water Heater Tank | Y | 1 | 100% | |
| SANITARY SEWER | | | | |
| Sanitary Lift Station | Y | 2 | 100% | Each lift station includes 2x100% sewage pumps |
| Sanitary Sewer Pumps | Y | 4 | 100% | |
| Sanitary Treatment Facility | Y | 1 | 100% | Package treatment of sanitary waste prior to effluent to existing wastewater outfall |
| WASTEWATER | | | | |
| Contaminated Wastewater | Y | - | - | Drains for areas around equipment that could be contaminated with oil will be directed through an oil/water separator. |
| Oil/Water Separator (OWS) | Y | 2 | 100% | Each OWS includes 2x100% pumps. Effluent discharged to existing outfall |
| Plant Drains Sump Pumps | Y | 5 | 100% | Sumps and sump pumps as required |
| CTG Water Wash Skid | Y | 1 | 100% | |
| Washwater/False Start Drains Tank | Y | 5 | 100% | 1 x 100% per CTG |
| CATHODIC PROTECTION | | | | |
| Underground Steel Piping | Y | - | - | Cathodic protection system will be galvanic anode type, if required. |
| Underground Steel Tanks | Y | - | - | Coated with sacrificial anodes, if required. |
| DEMOLITION | Y | - | - | Existing buried utilities for coal plant will be demolished as required for new design |
| CONTROLS | | | | |
| Equipment Control | | | | |
| CTG | Y | - | - | Control system provided by equipment OEM with local HMI for each CTG |
| Medium Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Motor Control Centers | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Low Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| Plant Control System | Y | - | - | Provided system will link all CTG controllers and HMI application servers. Provided with redundant ethernet to application servers. |
| Plant Historian | Y | - | - | |
| Offsite Interfaces | Y | - | - | Dispatching, OEM Monitoring, EKPC Monitoring |
| Automatic Generation Control | | | | |
| Distributed Control System (DCS) | Y | 1 | 100% | Balance of Plant controls same as CTG control for Siemens. Separate DCS would be needed for GE turbines. |
| Vibration monitoring | | | | |
| CTG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| BOP Motors for Critical or High Speed Applications | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| Plant Simulator | Y | - | - | EKPC to confirm. |
| Digital Bus | | | | |
| Foundation Fieldbus | N | - | - | |
| Remote I/O | Y | - | - | |
| Instrumentation | | | | |
| Transmitters | Y | - | - | |
| HART | Y | - | - | Install tri-loops on valves for feedback. |
| Performance Testing | Y | - | - | |
| Meteorological Station | N | - | - | |
| Continuous Emissions Monitoring System | Y | 5 | 100% | 1x100% per stack. Datalink to DCS |
| Relaying Data Link | Y | - | - | Redundant relay communications network for protection and control. See Equipment Control section for equipment / relay interfaces to the control system. |
| Communication | Y | - | - | Datalinks for Battery Monitoring, Gas Yard, Gas Compressors/Dewpoint Heaters, Air Compressors, CEMS |
| Dispatching | Y | - | - | Automatic Generation Control through RTU communication |
| Off site monitoring/administrations | Y | - | - | OEM for Turbine Controller Remote Connection |
| Switchyard | Y | - | - | Communication Interface with Switchyard RTU |
| Internal plant | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| External | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| NERC CIP Requirements | Y | - | - | EKPC to confirm. E.g. CIP low, medium, etc. |
| HMI | Y | - | - | Stand Alone Controllers with local HMI's. Plant Control HMI located in New Control Room, Admin DCS Room and Switchgear building. |
| ELECTRICAL | | | | |
| Generator Step-Up Transformers: | | | | |
| Gas Turbine | Y | 5 | 100% | 1 x 100% for each CTG |
| Auxiliary/Reserve Transformers: | | | | |
| Gas Turbine | Y | 5 | 100% | Each auxiliary transformer sized to source the associated unit and provide backup to an adjacent unit |
| Generator Buses: | | | | |
| Gas Turbine | Y | 5 | 100% | Isolated Phase Bus: 1 x 100% for each CTG |
| Generator Circuit Breakers: | | | | |
| Gas Turbine | Y | 5 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Blackstart Generator(s) and Capability | N | - | - | |
| Electrical Equipment Enclosures: | Y | - | - | Base scope will house electrical equipment inside power building or water treatment building. |
| Switchgear: | | | | |
| 4160V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| 480V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| Motor Control Centers: | | | | |

**East Kentucky Power Cooperative
Smith Simple Cycle
Scope Assumptions Matrix**



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|--|
| 480 V MCCs | Y | - | - | Rated for the operating load |
| Emergency Power: | | | | |
| Uninterruptible Power (UPS) | Y | - | - | A single Balance of Plant UPS system will be provided for the BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| DC System | Y | - | - | A single Balance of Plant DC system will be provided for the BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| Standby Diesel Generator | Y | - | - | Standby diesel generator rated for OEM and BOP Essential operating loads as well as heat trace to maintaining a safe shutdown condition. |
| Stand Alone Control Systems | | | | |
| Fire Protection/Detection | Y | - | - | See fire protection section in Mechanical for details |
| Plant HVAC | Y | - | - | See HVAC section in Mechanical for details |
| Building/Site Security | Y | - | - | |
| Plant Communications | Y | - | - | |
| On-Line Battery Monitoring: | | | | |
| Lighting | | | | |
| Normal | Y | - | - | LED-lighting; lighting required for new road and plant buildings. |
| Emergency Egress | Y | - | - | Local battery pack fixtures will be provided for emergency egress. |
| Grounding | Y | - | - | Brownfield site. New grounding grid with ties to the existing plant grid as applicable. |
| Lightning Protection | Y | - | - | A UL Master Label will be provided for the new facility. |
| Freeze Protection | Y | - | - | Heat tracing designed to maintain 40F for fluids subject to freezing based on size and service |
| Electrical Studies: | | | | |
| Load Flow, voltage drop, short circuit | Y | - | - | Identify equipment and bus loading, motor terminal voltages and available fault currents at each voltage level |
| Protective coordination/relay settings | Y | - | - | |
| Arc Flash | Y | - | - | |
| Cabling | Y | - | - | Cable tray and field routed conduit above grade, duct bank below grade |
| Transmission / Interconnection: | N | - | - | Per EKPC |
| CIVIL/STRUCTURAL | | | | |
| Existing Facilities | Y | - | - | Brownfield site. Tie into existing Smith system (roads, storm drainage). Topographic survey of the plant areas will be required. |
| Layout Considerations | Y | - | - | Reuse part of existing infrastructure and road from previous coal plant construction for two CTGs. Utilize open slots (8, 11, 12) for three remaining CTGs adjacent to existing simple cycle CTGs |
| Disposal of Spoils | - | - | - | Excess spoils will be disposed of on-site, used for fill if possible. No hazardous materials accounted for in project estimate. |
| Soils Conditions / Stability | - | - | - | Two of the new simple cycle CTGs will be in area of coal-fired unit. No geotechnical information provided for coal-fired unit area. Estimate assumptions generally based on geotechnical information for existing Units -12 combustion turbines. |
| Soil Improvement | N | - | - | No soil improvement is assumed |
| Subsurface Rock | N | - | - | Assume no rock excavation required. |
| Subsurface water | N | - | - | No dewatering included. |
| Cut/Fill | - | - | - | Use existing site materials to grade the site and avoid off-site borrow. |
| Disposal of debris | - | - | - | Disposed of on-site. However, debris from the existing foundation demolition and existing buried piping demolition would have to be transported to a permitted facility or the facility on-site would have to be permitted for this use. |
| Permanent Stormwater | - | - | - | Existing. New surface water drainage ditches and piping to collect and direct to offsite outfall. Regrading as required to follow existing drainage paths. |
| Construction Stormwater | - | - | - | Erosion control will be in accordance with state and local guidelines and regulations and will include best management practices such as silt fence, rock check dams, slope protection, construction exits, and stormwater pond(s) for construction and permanent. A SWPPP will be prepared. |
| Roads | N | - | - | Existing plant roads to allow for deliveries via truck. |
| Surfacing | - | - | - | Main access roads shall be paved with asphaltic concrete. Maintenance roads and areas will be covered with crushed rock. Other areas top soil and seeded. |
| Soil Bearing Capacity | - | - | - | Soil bearing capacity not available. To be determined by geotechnical investigation. Foundation types assumed as noted below based on an allowable bearing capacity of approximately 2,500 psf. |
| Foundation type | - | - | - | Assume CTG's will be pile-supported. All other equipment/structures will be supported on shallow foundations (mats or footings). A geotechnical investigation will be needed to confirm these assumptions. |
| Transformer Containment | - | - | - | Containment for oil-filled transformer will be provided with an open pit design. |
| Enclosures | | | | |
| CTG Enclosures | Y | 5 | 100% | Enclosure housing each CTG |
| Water Treatment Building | Y | 1 | 100% | Building housing water treatment equipment and fire water pumps |
| Electrical (see electrical section) | Y | - | - | |
| Warehouse/Admin Facilities | Y | 1 | 100% | |
| Maintenance cranes | N | - | - | |
| Guardshack | N | - | - | Existing Smith guardshack used. |
| Site Security | - | - | - | Included in Owner's costs |
| Landscaping | - | - | - | Minimal landscaping included. Disturbed areas will be seeded for erosion control. |
| Fence | N | - | - | Assume existing perimeter security fence is adequate for new plant |
| CONSTRUCTION | | | | |
| Utilities | | | | |
| Power | Y | - | - | Construction power from existing J.K Smith facility |
| Communication | Y | - | - | Tie-in to existing system |
| Construction Water | Y | - | - | Tie-in to existing J.K. Smith facility service water system |
| Potable Water | Y | - | - | Tie-in to existing J.K. Smith facility potable water system |
| Sanitary | Y | - | - | Portable facilities provided by construction contractors |
| Parking | Y | - | - | New permanent parking adjacent to Admin/Warehouse building and Water Treatment building. Temporary construction parking to be identified. |
| Gate Entry | | | | |
| Main | - | - | - | Existing Smith guard shack. |
| Personnel/Craft | - | - | - | Existing Smith main gate and guard shack. |

East Kentucky Power Cooperative
Smith Simple Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|--|
| Delivery | - | - | - | New slide gate for construction. |
| Construction Field Office / Trailers | | | | |
| Owner | Y | - | - | Trailers in Owners Costs. |
| Engineer | Y | - | - | Trailers in Owners Costs. |
| Vendors | Y | - | - | Trailers in Owners Costs. |
| Contractors | Y | - | - | Trailers in Owners Costs. |
| Site Services | Y | - | - | Trailers in Owners Costs. |
| Laydown area | Y | - | - | On site areas to be identified |
| Warehouses | Y | - | - | Existing warehouse is full; Contractor will provide necessary storage space during construction. |
| OWNER COSTS / MISC. | | | | |
| Permits | | | | |
| See Permit Matrix | Y | - | - | EKPC w/ BMCD Support. |
| Owner's Costs | | | | |
| Project Development | Y | - | - | Allowance to be included |
| Owner's Operations Personnel | Y | - | - | Allowance to be included |
| Owner's Project Management | Y | - | - | Allowance to be included |
| Owner's Engineer | N | - | - | |
| Owner's Legal Counsel | Y | - | - | Allowance to be included |
| Political Concessions / Area Development Fees | Y | - | - | Allowance to be included |
| Permitting & License Fees | Y | - | - | Allowance to be included |
| Land | N | - | - | Brownfield, existing |
| Water Rights Costs | Y | - | - | Allowance to be included |
| Water Infrastructure and Supply to Site | N | - | - | Existing |
| Natural Gas Infrastructure and Supply to Site | N | - | - | N/A, reuse existing |
| Labor Camp | N | - | - | |
| Permanent Plant Operating Spare Parts | Y | - | - | Allowance to be included |
| Maintenance Tools & Equipment | Y | - | - | Allowance to be included |
| Permanent Plant Equipment & Furnishings | Y | - | - | Allowance to be included |
| Sales Tax | Y | - | - | Sales tax is excluded, other than for non-permanent consumables and supplies |
| Escalation | Y | - | - | Allowance to be included |
| Owner's Contingency | Y | - | - | Allowance to be included |
| Interest During Construction | N | - | - | Excluded |
| Temporary Utilities | Y | - | - | Included in EPC costs |
| Startup Testing Fuels and Consumables | Y | - | - | Allowance to be included |
| Operator training | Y | - | - | Allowance to be included |
| Site Security | Y | - | - | Allowance to be included |
| GENERAL ASSUMPTIONS | | | | |
| Reuse of Existing Equipment and Systems | Y | - | - | Existing equipment, piping, cables, etc. are in adequate working order and can be reused without modifications |
| EXCLUSIONS | | | | |
| Taxes | - | - | - | Sales, use, gross receipts, property, and other types. |
| Insurance | - | - | - | All insurance other than General Liability being carried as a project cost |
| Sound abatement above normal supply | - | - | - | |
| Aesthetic landscaping other than erosion control | - | - | - | |
| High escalation associated with extreme market conditions | - | - | - | |
| Financing fees | - | - | - | |
| Interest during construction | - | - | - | |

East Kentucky Power Cooperative
Tygart Creek Simple Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|--|-----|--------|--------------------------|---|
| GENERAL PROJECT INFORMATION | | | | |
| Project Description | - | - | - | New three (3) advanced F-class, dual-fuel rated, simple cycle combustion turbines (CTGs). The new CTGs and associated auxiliary equipment will be located indoors. |
| Project Location | - | - | - | Greenup County, KY. |
| Site Description | - | - | - | New greenfield site at Tygart Creek site #2. |
| Design Fuel | - | - | - | New tie to nearby natural gas pipeline at site with fuel oil backup (ultra low sulfur diesel) |
| Heat Rejection | - | - | - | N/A |
| Operation | - | - | - | Peaking |
| Capacity Factor | - | - | - | <35% |
| Contracting Approach | - | - | - | Multi-prime. |
| Labor | - | - | - | Union or Non-Union. |
| Project Liquidated Damages | - | - | - | Schedule and performance for each contract. |
| Project Bonding /LOC | - | - | - | 100% Bonding. |
| Project COD Dates | - | - | - | 2030 |
| Project Expansion | - | - | - | Leave room for future expansion/additional simple cycle units |
| MECHANICAL SYSTEMS/EQUIPMENT | | | | |
| CLOSED COOLING WATER (CCW) | | | | |
| Air-Cooled Heat Exchanger (ACHE) | Y | 3 | 100% | 1 x 100% per unit |
| CCW Pumps | Y | 6 | 100% | 2 x 100% per unit |
| CCW Expansion Tank | Y | 3 | 100% | 1 x 100% per unit |
| CTG Cooler | Y | 12 | 25% | 4 x 25% per unit |
| CTG Lube Oil Cooler | Y | 6 | 50% | 2 x 50% per unit |
| COMPRESSED AIR | | | | |
| Air Compressors | Y | 2 | 100% | Air-Cooled, Oil-Free, Rotary Screw |
| Air Dryer/Filters | Y | 2 | 100% | Twin-Tower, Heatless Desiccant with pre- and after-filters |
| Wet Air Receiver | Y | 1 | 100% | |
| Dry Air Receiver | Y | 1 | 100% | |
| Pulse Air Receivers | Y | 3 | 100% | 1 x 100% per unit |
| COMPRESSED GASES | | | | |
| Bulk CO2 Storage Skid | Y | 1 | 100% | Bulk storage vessel with condensing unit, vaporizer, and regulation |
| DEMINERALIZED WATER SYSTEM | | | | |
| Supply Source | - | - | - | Portable Demineralized Trailers |
| Demineralized Water Transfer Pumps | Y | 4 | 100% | 1 x 100% per unit with common spare |
| Demineralized Water Storage Tank | Y | 1 | 100% | Field erected tank. Sizing based on evaporative cooler makeup and NOx water injection (while firing on fuel oil) for all three new units |
| FIRE PROTECTION | | | | |
| Design Basis | Y | - | - | NFPA 850 recommended practice. |
| Insurer/special requirements | Y | - | - | FM Global |
| CTG Fire Protection | Y | - | - | CO2 and alarm |
| Electrical Equipment Rooms / PCMs | Y | - | - | CO2 and alarm |
| Pump supply source(s) | Y | 2 | 100% | Electric motor and Diesel driven fire pump taking suction from the Service/Fire Water Storage Tank. Jockey pump to maintain header pressure and for small leaks. |
| Storage | Y | 1 | 100% | Combined Service/Fire Water Storage Tank fed from makeup water source |
| Fire loop | Y | - | - | New fire loop to encompass units |
| Sprinklers | Y | - | - | Provided for occupied buildings per NFPA 13 including admin/office areas, laboratories, restrooms and warehouse space. |
| Foam System | N | - | - | |
| Smoke/heat detectors | Y | - | - | Where necessary or recommended by NFPA |
| Fire walls | Y | - | - | 2-hr fire walls where required by NFPA |
| FUEL OIL | | | | |
| Storage Tank | Y | 2 | 50% | Field Erected tank sized for 72 hours of GT operation at full load. Located within secondary containment structure |
| Forwarding Pumps | Y | 4 | 100% | 1 x 100% for each combustion turbine unit with 1 x 100% common spare located near fuel oil tank. |
| Unloading Pumps | Y | 3 | 100% | Two (2) truck unloading stations. 1 x 100% unloading pump for each unloading station with 1 x 100% common spare. |
| Transfer Pump | Y | 1 | 100% | Transfer diesel fuel to diesel fire pump day tank |
| Heating | Y | 3 | 50% | 3 x 50% inline electric heaters with recirculation system. Each heater sized for 50% of total plant fuel oil flow (all three new units). |
| Duplex Filter | Y | 3 | 100% | One skid for each CTG (provided by CTG supplier) |
| Meter | Y | 3 | 100% | One for each CTG (provided by CTG supplier) |
| HVAC SYSTEMS | | | | |
| Building electric heaters, exhaust fans and intake louvers, air-conditioning | Y | TBD | 100% | As required for occupied buildings and electrical rooms |
| MAKE-UP WATER | | | | |
| Supply Source | - | - | - | New well water for supply |
| Well Water Pumps | Y | 2 | 100% | |
| Well Water Strainer/Filter Skid | Y | 1 | 100% | |
| Chemical Feed Pumps | Y | 2 | 100% | Chemicals as required based on source water quality |
| Chemical Totes | Y | 1 | 100% | |
| Service/Fire Water Storage | Y | 1 | 100% | Field erected tank, includes immersion heater(s) and insulation. Standpipe for dedicated fire water volume. |
| Service Water Pumps | Y | 2 | 100% | |
| NATURAL GAS | | | | |
| Off-site Pipeline | N | - | - | Natural gas available at an interconnection at/near the site boundary. |
| Compression | N | - | - | Assume sufficient pressure available |
| Metering & Regulation | Y | 2 | 100% | |
| Dew Point Heating | Y | 3 | 100% | 1 x 100% per CTG. Natural gas fired dew point heaters |
| Combustion Gas Turbine (CTG) | Y | 3 | 100% | Dual fuel rated (natural gas and ULSD) F-class gas turbine generators provided with inlet silencers, air filtration systems, low Nox combustors, lube oil systems, hydraulic oil systems, starting systems, acoustical enclosures with HVAC, controls, fire protection and fuel systems |
| Fuel Gas Filter Separator | Y | 3 | 100% | 1 x 100% per CTG |
| Fuel Gas Metering Skid | Y | 3 | 100% | 1 x 100% per CTG |
| Fuel Gas Pilot Fuel Filter Separator Skid | Y | 3 | 100% | 1 x 100% per CTG |
| Fuel Gas Heater Skid | Y | 3 | 100% | 1 x 100% per CTG |

East Kentucky Power Cooperative
Tygart Creek Simple Cycle
Scope Assumptions Matrix



| | | Y/N | Number | % Capacity (per Unit) | Notes |
|---|--|-----|--------|--------------------------|---|
| | Fuel Gas Knockout Drum | Y | 3 | 100% | 1 x 100% per CTG |
| | Fuel Gas Filter Separator Skid | Y | 2 | 50% | Supply gas filter separator and drains tank |
| | Fuel Gas Drains Tank | Y | 3 | 100% | 1 x 100% per CTG |
| POTABLE WATER | | | | | |
| | Supply Source | Y | - | - | City tap, assumes sufficient pressure and flow |
| | Emergency Eye Wash/Safety Showers | Y | 4 | 100% | |
| | Potable Water Instantaneous Heaters | Y | 3 | 100% | |
| | Potable Water Water Heater Tank | Y | 1 | 100% | |
| SANITARY SEWER | | | | | |
| | Sanitary Lift Station | Y | 2 | 100% | Each lift station includes 2x100% sewage pumps |
| | Sanitary Sewer Pumps | Y | 4 | 100% | |
| | Sanitary Treatment Facility | Y | 1 | 100% | Biotreatment of sanitary waste prior to effluent to new wastewater outfall |
| WASTEWATER | | | | | |
| | Contaminated Wastewater | Y | - | - | Drains for areas around equipment that could be contaminated with oil will be directed through an oil/water separator. |
| | Oil/water Separator (OWS) | Y | 1 | 100% | Each OWS includes 2x100% pumps. Effluent discharged to new outfall |
| | Plant Drains Sump Pumps | Y | 5 | 100% | Sumps and sump pumps as required |
| | CTG Water Wash Skid | Y | 1 | 100% | |
| | Washwater/False Start Drains Tank | Y | 3 | 100% | 1 x 100% per CTG |
| CATHODIC PROTECTION | | | | | |
| | Underground Steel Piping | Y | - | - | Cathodic protection system will be galvanic anode type, if required. |
| | Underground Steel Tanks | Y | - | - | Coated with sacrificial anodes, if required. |
| DEMOLITION | | | | | |
| CONTROLS | | | | | |
| Equipment Control | | | | | |
| | CTG | Y | - | - | Control system provided by equipment OEM with local HMI for each CTG |
| | Medium Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| | Motor Control Centers | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| | Low Voltage Switchgear | Y | - | - | Hardwire Start / Stop / Breaker Status. Soft communications for other I/O. |
| | Plant Control System | Y | - | - | Provided system will link all CTG controllers and HMI application servers. Provided with redundant ethernet to application servers. |
| | Plant Historian | Y | - | - | |
| | Offsite Interfaces | Y | - | - | Dispatching, OEM Monitoring, EKPC Monitoring |
| Automatic Generation Control | | | | | |
| | Distributed Control System (DCS) | Y | 1 | 100% | Balance of Plant controls same as CTG control for Siemens. Separate DCS would be needed for GE turbines. |
| Vibration monitoring | | | | | |
| | CTG | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| | BOP Motors for Critical or High Speed Applications | Y | - | - | Probes wired to Bently Nevada; Hardwire Points between Bently Nevada and Unit Controllers |
| Plant Simulator | | | | | |
| | | Y | - | - | EKPC to confirm. |
| Digital Bus | | | | | |
| | Foundation Fieldbus | N | - | - | |
| | Remote I/O | Y | - | - | |
| Instrumentation | | | | | |
| | Transmitters | Y | - | - | |
| | HART | Y | - | - | Install tri-loops on valves for feedback. |
| | Performance Testing | Y | - | - | |
| | Meteorological Station | N | - | - | |
| Continuous Emissions Monitoring System | | | | | |
| | | Y | 3 | 100% | 1x100% per stack. Datalink to DCS |
| Relaying Data Link | | | | | |
| | | Y | - | - | Redundant relay communications network for protection and control. See Equipment Control section for equipment / relay interfaces to the control system. |
| Communication | | | | | |
| | | Y | - | - | Datalinks for Battery Monitoring, Gas Yard, Gas Compressors/Dewpoint Heaters, Air Compressors, CEMS |
| | Dispatching | Y | - | - | Automatic Generation Control through RTU communication |
| | Off site monitoring/administrations | Y | - | - | OEM for Turbine Controller Remote Connection |
| | Switchyard | Y | - | - | Communication Interface with Switchyard RTU |
| | Internal plant | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| | External | Y | - | - | Need further discussions with EKPC IT to determine how this is handled. |
| NERC CIP Requirements | | | | | |
| | | Y | - | - | EKPC to confirm. E.g. CIP low, medium, etc. |
| HMI | | | | | |
| | | Y | - | - | Stand Alone Controllers with local HMI's. Plant Control HMI located in New Control Room, Admin DCS Room and Switchgear building. |
| ELECTRICAL | | | | | |
| Generator Step-Up Transformers: | | | | | |
| | Gas Turbine | Y | 3 | 100% | 1 x 100% for each CTG |
| Auxiliary/Reserve Transformers: | | | | | |
| | Gas Turbine | Y | 3 | 100% | Each auxiliary transformer sized to source the associated unit and provide backup to an adjacent unit |
| Generator Buses: | | | | | |
| | Gas Turbine | Y | 3 | 100% | Isolated Phase Bus: 1 x 100% for each CTG |
| Generator Circuit Breakers: | | | | | |
| | Gas Turbine | Y | 3 | 100% | Generator Circuit Breaker in Isolated Phase Bus for Synchronization |
| Blackstart Generator(s) and Capability | | | | | |
| | | N | - | - | |
| Electrical Equipment Enclosures: | | | | | |
| | | Y | - | - | Medium voltage electrical building |
| Switchgear: | | | | | |
| | 4160V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| | 480V Switchgear | Y | - | - | Configured in a Main-Tie-Main with source transformers and buses rated to power the entire lineup during the loss of a single source |
| Motor Control Centers: | | | | | |
| | 480 V MCCs | Y | - | - | Rated for the operating load |
| Emergency Power: | | | | | |
| | Uninterruptible Power (UPS) | Y | - | - | A single Balance of Plant UPS system will be provided for the BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |

East Kentucky Power Cooperative
Tygart Creek Simple Cycle
Scope Assumptions Matrix



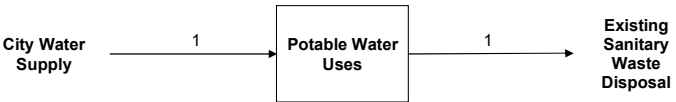
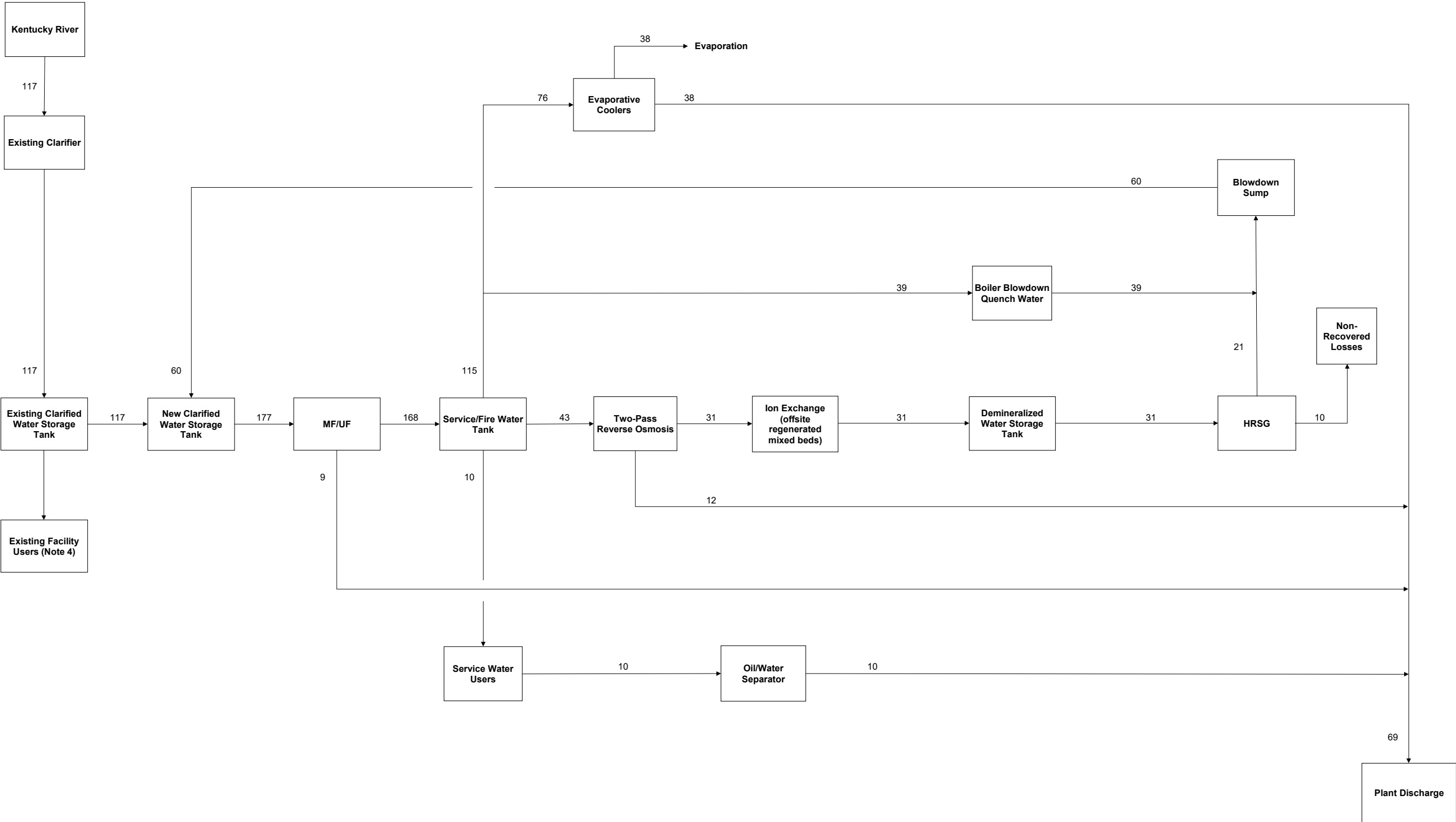
| | | Y/N | Number | % Capacity (per Unit) | Notes |
|----------------------------|--|-----|--------|--------------------------|--|
| | DC System | Y | - | - | A single Balance of Plant DC system will be provided for the BOP loads. The CTG OEM will provide the essential system for their equipment and safe shutdown. |
| | Standby Diesel Generator | Y | - | - | Standby diesel generator rated for OEM and BOP Essential operating loads as well as heat trace to maintaining a safe shutdown condition. |
| | Stand Alone Control Systems | | | | |
| | Fire Protection/Detection | Y | - | - | See fire protection section in Mechanical for details |
| | Plant HVAC | Y | - | - | See HVAC section in Mechanical for details |
| | Building/Site Security | Y | - | - | |
| | Plant Communications | Y | - | - | |
| | On-Line Battery Monitoring: | Y | - | - | |
| | Lighting | | | | |
| | Normal | Y | - | - | LED-lighting; lighting required for new road and plant buildings. |
| | Emergency Egress | Y | - | - | Local battery pack fixtures will be provided for emergency egress. |
| | Grounding | Y | - | - | New grounding grid |
| | Lightning Protection | Y | - | - | A UL Master Label will be provided for the new facility. |
| | Freeze Protection | Y | - | - | Heat tracing designed to maintain 40F for fluids subject to freezing based on size and service |
| | Electrical Studies: | | | | |
| | Load Flow, voltage drop, short circuit | Y | - | - | Identify equipment and bus loading, motor terminal voltages and available fault currents at each voltage level |
| | Protective coordination/relay settings | Y | - | - | |
| | Arc Flash | Y | - | - | |
| | Cabling | Y | - | - | Cable tray and field routed conduit above grade, duct bank below grade |
| | Transmission / Interconnection: | N | - | - | Per EKPC |
| CIVIL/STRUCTURAL | | | | | |
| | Existing Facilities | N | - | - | Greenfield site. Not applicable |
| | Layout Considerations | Y | - | - | Sufficient room for future expansion considered. Tie-ins to new gas pipeline and transmission. |
| | Disposal of Spoils | - | - | - | Excess spoils will be disposed of on-site, used for fill if possible. No hazardous materials accounted for in project estimate. |
| | Soils Conditions / Stability | - | - | - | No geotechnical information known at this time. Geotech will need to be completed to confirm. No special considerations included at this time. |
| | Soil Improvement | N | - | - | No soil improvement is assumed |
| | Subsurface Rock | N | - | - | Assume no rock excavation required. |
| | Subsurface water | N | - | - | No dewatering included. |
| | Cut/Fill | - | - | - | Use existing site materials to grade the site and avoid off-site borrow. |
| | Disposal of debris | - | - | - | Disposed of on-site. |
| | Permanent Stormwater | - | - | - | New stormwater to be collected in ditches and routed to new permitted outfall |
| | Construction Stormwater | - | - | - | Erosion control will be in accordance with state and local guidelines and regulations and will include best management practices such as silt fence, rock check dams, slope protection, construction exits, and stormwater pond(s) for construction and permanent. A SWPPP will be prepared. |
| | Roads | Y | - | - | All new roads for site |
| | Surfacing | - | - | - | Main access roads shall be paved. Maintenance roads and areas will be covered with crushed rock. Other areas top soil and seeded. |
| | Soil Bearing Capacity | - | - | - | Soil bearing capacity not available. To be determined by geotechnical investigation. Foundation types assumed as noted below based on an allowable bearing capacity of approximately 2,500 psf. |
| | Foundation type | - | - | - | Assume CTG's will be pile-supported. All other equipment/structures will be supported on shallow foundations (mats or footings). A geotechnical investigation will be needed to confirm these assumptions. |
| | Transformer Containment | - | - | - | Containment for oil-filled transformer will be provided with an open pit design. |
| | Enclosures | | | | |
| | CTG Enclosures | Y | 3 | 100% | Enclosure housing each CTG |
| | Water Treatment Building | Y | 1 | 100% | Building housing water treatment equipment and fire water pumps |
| | Electrical (see electrical section) | Y | - | - | |
| | Warehouse/Admin Facilities | Y | 1 | 100% | |
| | Maintenance cranes | N | - | - | |
| | Guardshack | Y | - | - | New guard shack |
| | Site Security | - | - | - | Included in Owner's costs |
| | Landscaping | - | - | - | Minimal landscaping included. Disturbed areas will be seeded for erosion control. |
| | Fence | Y | - | - | New fence around perimeter of new plant facilities |
| CONSTRUCTION | | | | | |
| | Utilities | | | | |
| | Power | Y | - | - | Construction power from aux. generators |
| | Communication | Y | - | - | Cellular |
| | Construction Water | Y | - | - | Tie into new well |
| | Potable Water | Y | - | - | Trucked until City potable tie-in connection is commissioned |
| | Sanitary | Y | - | - | Portable facilities provided by construction contractors |
| | Parking | Y | - | - | New permanent parking adjacent to Admin/Warehouse building and Water Treatment building. Temporary construction parking to be identified. |
| | Gate Entry | | | | |
| | Main | Y | - | - | New guard shack |
| | Personnel/Craft | Y | - | - | New main gate/construction entrance |
| | Delivery | Y | - | - | New slide gate for construction |
| | Construction Field Office / Trailers | | | | |
| | Owner | Y | - | - | Trailers in Owners Costs. |
| | Engineer | Y | - | - | Trailers in Owners Costs. |
| | Vendors | Y | - | - | Trailers in Owners Costs. |
| | Contractors | Y | - | - | Trailers in Owners Costs. |
| | Site Services | Y | - | - | Trailers in Owners Costs. |
| | Laydown area | Y | - | - | On site areas to be identified |
| | Warehouses | Y | - | - | Contractor will provide necessary storage space during construction. |
| OWNER COSTS / MISC. | | | | | |
| | Permits | | | | |

East Kentucky Power Cooperative
Tygarts Creek Simple Cycle
Scope Assumptions Matrix



| | Y/N | Number | % Capacity (per Unit) | Notes |
|---|-----|--------|--------------------------|--|
| See Permit Matrix | Y | - | - | EKPC w/ BMCD Support. |
| Owner's Costs | | | | |
| Project Development | Y | - | - | Allowance to be included |
| Owner's Operations Personnel | Y | - | - | Allowance to be included |
| Owner's Project Management | Y | - | - | Allowance to be included |
| Owner's Engineer | N | - | - | |
| Owner's Legal Counsel | Y | - | - | Allowance to be included |
| Political Concessions / Area Development Fees | Y | - | - | Allowance to be included |
| Permitting & License Fees | Y | - | - | Allowance to be included |
| Land | Y | - | - | Allowance to be included |
| Water Rights Costs | Y | - | - | Allowance to be included |
| Water Infrastructure and Supply to Site | Y | - | - | New well water for supply |
| Natural Gas Infrastructure and Supply to Site | N | - | - | Existing pipeline adjacent to site |
| Labor Camp | N | - | - | |
| Permanent Plant Operating Spare Parts | Y | - | - | Allowance to be included |
| Maintenance Tools & Equipment | Y | - | - | Allowance to be included |
| Permanent Plant Equipment & Furnishings | Y | - | - | Allowance to be included |
| Sales Tax | Y | - | - | Sales tax is excluded, other than for non-permanent consumables and supplies |
| Escalation | Y | - | - | Allowance to be included |
| Owner's Contingency | Y | - | - | Allowance to be included |
| Interest During Construction | N | - | - | Excluded |
| Temporary Utilities | Y | - | - | Included in EPC costs |
| Startup Testing Fuels and Consumables | Y | - | - | Allowance to be included |
| Operator training | Y | - | - | Allowance to be included |
| Site Security | Y | - | - | Allowance to be included |
| EXCLUSIONS | | | | |
| Taxes | - | - | - | Sales, use, gross receipts, property, and other types. |
| Insurance | - | - | - | All insurance other than General Liability being carried as a project cost |
| Sound abatement above normal supply | - | - | - | |
| Aesthetic landscaping other than erosion control | - | - | - | |
| High escalation associated with extreme market conditions | - | - | - | |
| Financing fees | - | - | - | |
| Interest during construction | - | - | - | |

APPENDIX C – WATER MASS BALANCES



| no. | date | by | ckd | description |
|-----|--------|-----|-----|-------------|
| 0 | 6/5/23 | DKE | BDH | Preliminary |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

NOTES:

1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Assumes 1% of Total Steaming Rate as Makeup
4. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

| | |
|-------------------------|----|
| DESIGN CRITERIA: | |
| Dry Bulb Temp °F | 85 |
| Wet Bulb Temp °F | 75 |
| Evap Coolers | ON |

PRELIMINARY

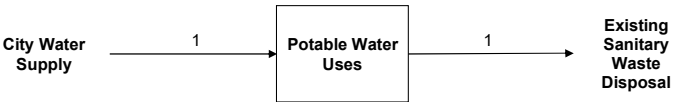
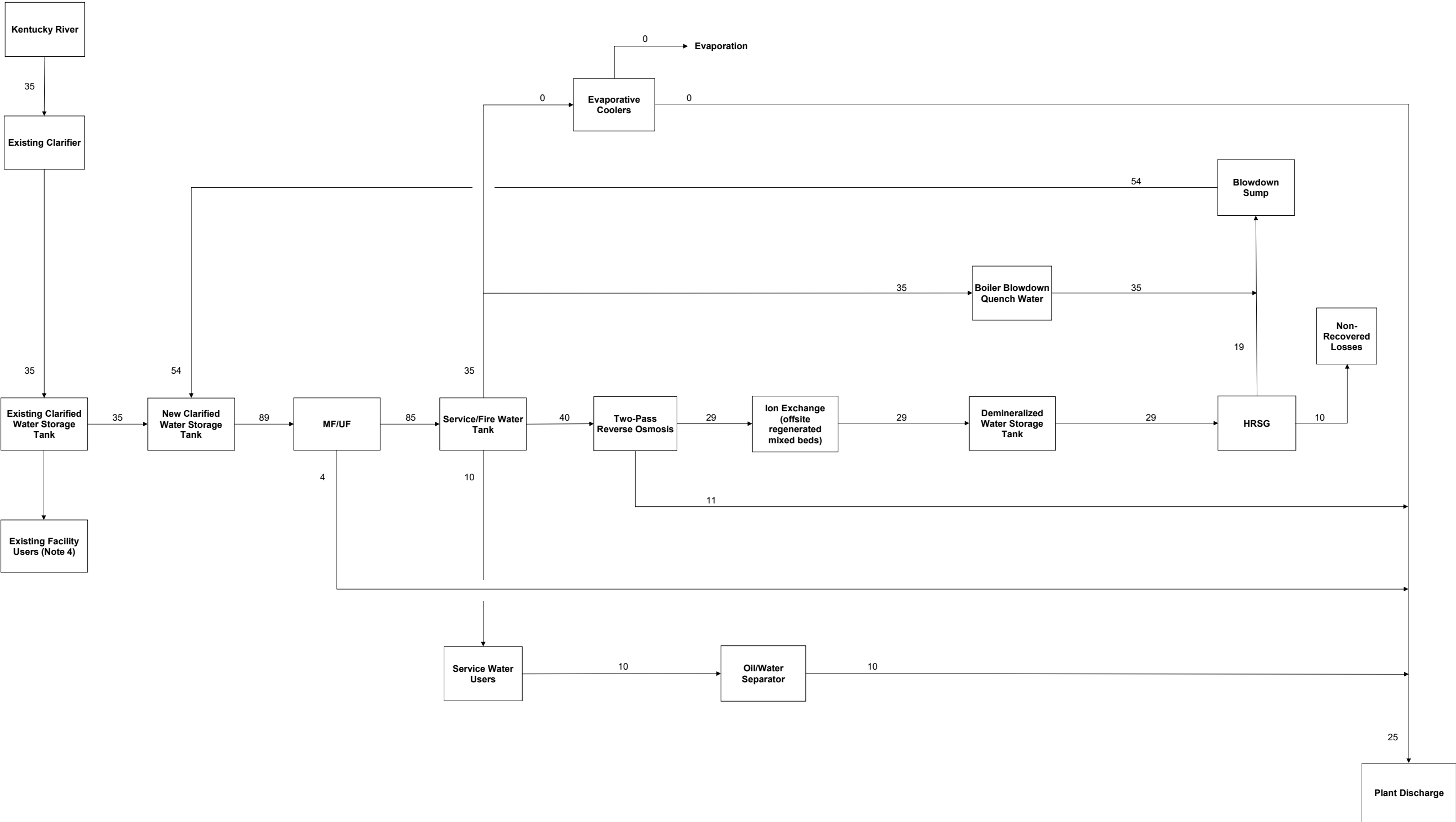


| | | | |
|----------|------------|----------|------------|
| date | 6/5/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | B. Hansen |



EKPC - SMITH
Water Mass Balance - 2x1 5000H
Unfired 2x100% 85°F Evap ON

| | | | |
|---------|----------|----------|---|
| project | 157787 | contract | |
| drawing | WMB - 01 | rev. | 0 |
| sheet | 1 | of | 1 |
| file | | | |



| no. | date | by | ckd | description |
|-----|--------|-----|-----|-------------|
| 0 | 6/5/23 | DKE | BDH | Preliminary |
| | | | | |
| | | | | |
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NOTES:

1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Assumes 1% of Total Steaming Rate as Makeup
4. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

| | |
|------------------|-----|
| DESIGN CRITERIA: | |
| Dry Bulb Temp °F | 59 |
| Wet Bulb Temp °F | 51 |
| Evap Coolers | OFF |

PRELIMINARY

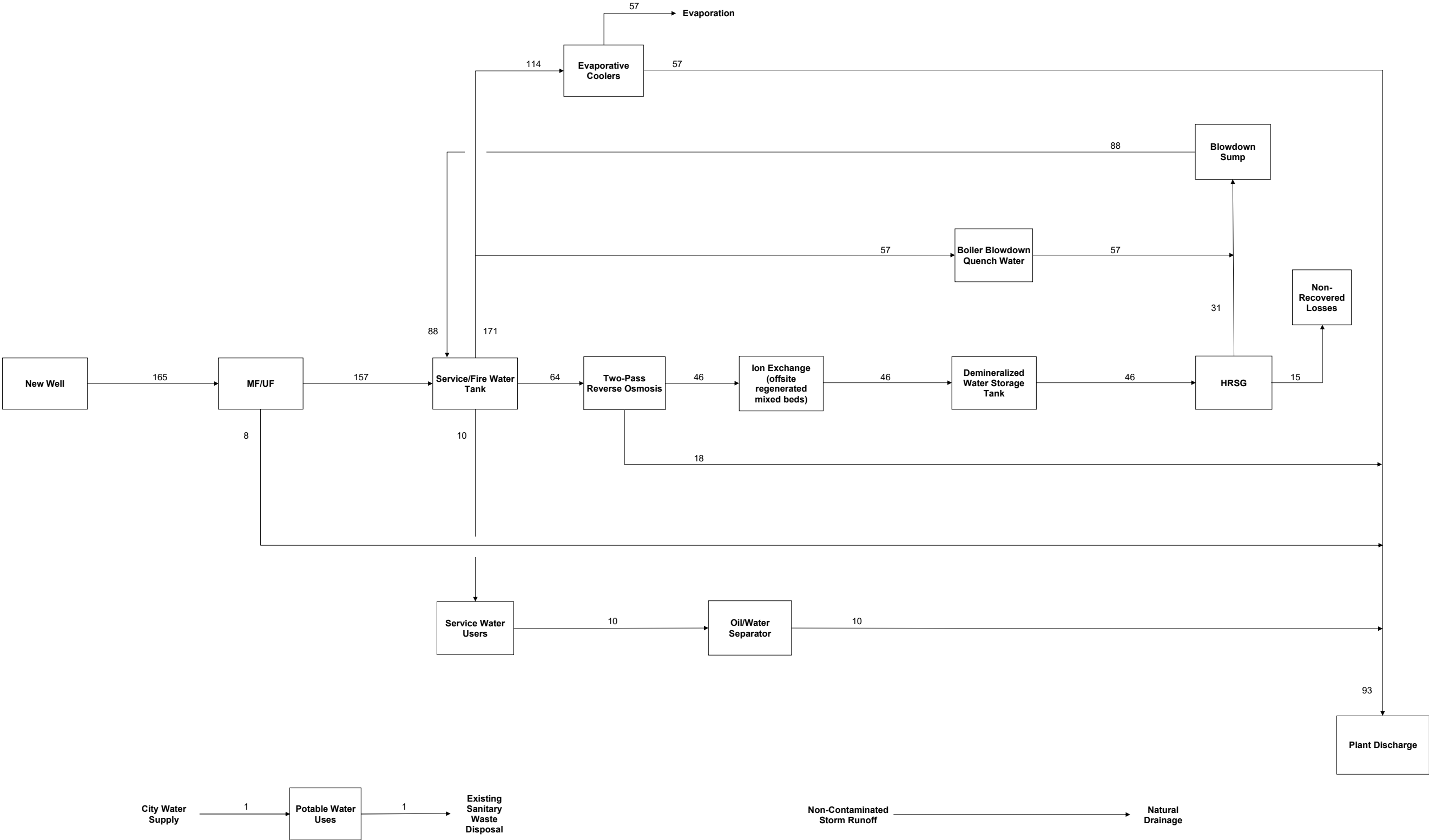


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|----------|------------|----------|------------|
| date | 6/5/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | B. Hansen |



EKPC - SMITH
Water Mass Balance - 2x1 5000H
Unfired 2x100% 59°F Evap OFF

| | | | |
|---------|----------|----------|---|
| project | 157787 | contract | |
| drawing | WMB - 02 | rev. | 0 |
| sheet | 1 | of | 1 |
| file | | | |



| no. | date | by | ckd | description |
|-----|---------|-----|-----|-------------|
| 0 | 7/24/23 | DKE | BDH | Preliminary |
| | | | | |
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NOTES:

1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Assumes 1% of Total Steaming Rate as Makeup
4. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

| | |
|-------------------------|----|
| DESIGN CRITERIA: | |
| Dry Bulb Temp °F | 85 |
| Wet Bulb Temp °F | 75 |
| Evap Coolers | ON |

PRELIMINARY

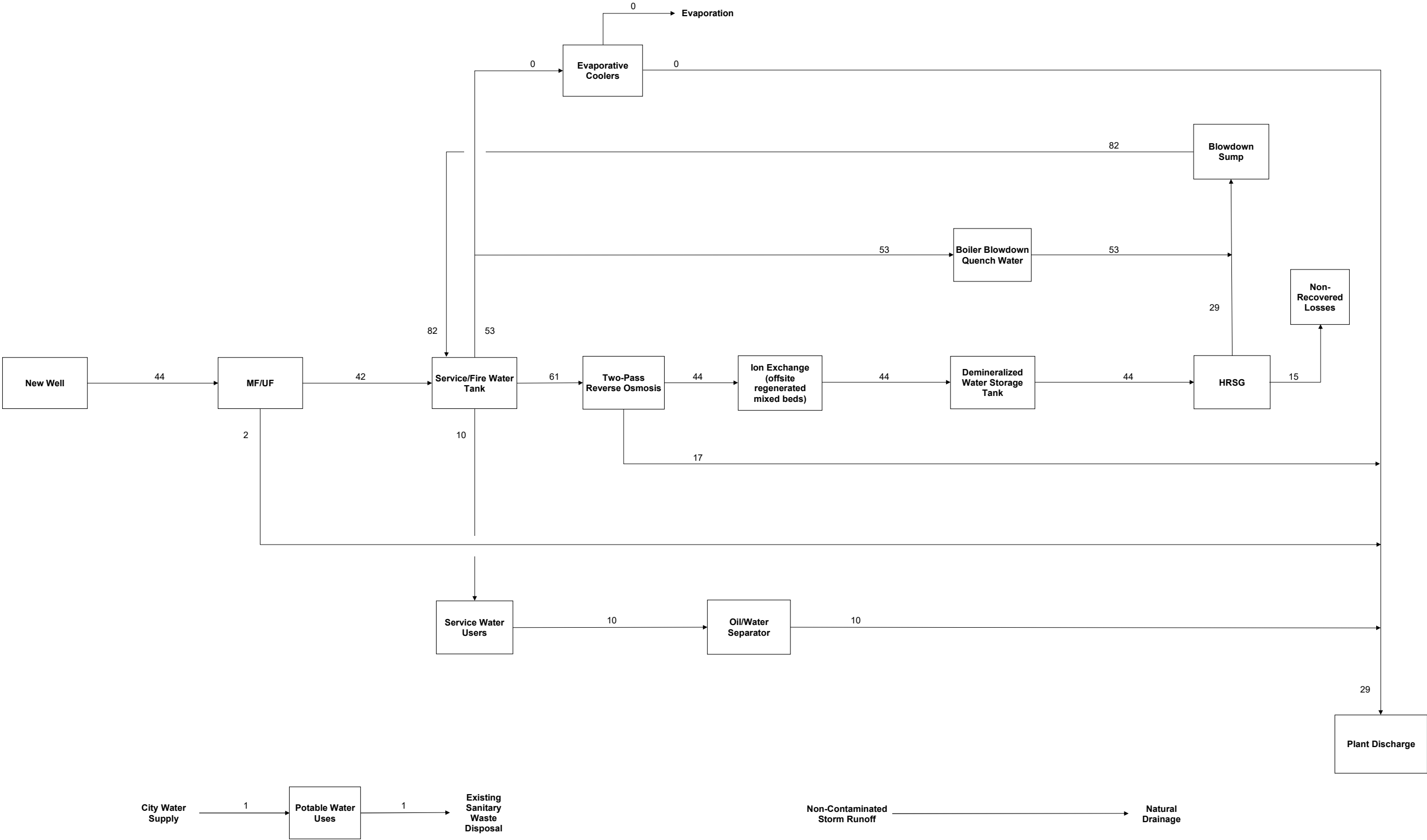


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|----------|------------|----------|------------|
| date | 7/24/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | B. Hansen |



| | | | |
|--|----------|----------|---|
| EKPC - TYGART Water Mass Balance - 3x1 5000H Unfired 3x100% 85°F Evap ON | | | |
| project | 157787 | contract | |
| drawing | WMB - 01 | rev. | 0 |
| sheet | 1 | of | 1 |
| file | | | |

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| no. | date | by | ckd | description |
|-----|---------|-----|-----|-------------|
| 0 | 7/24/23 | DKE | BDH | Preliminary |
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NOTES:

1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Assumes 1% of Total Steaming Rate as Makeup
4. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

| | |
|-------------------------|-----|
| DESIGN CRITERIA: | |
| Dry Bulb Temp °F | 59 |
| Wet Bulb Temp °F | 51 |
| Evap Coolers | OFF |

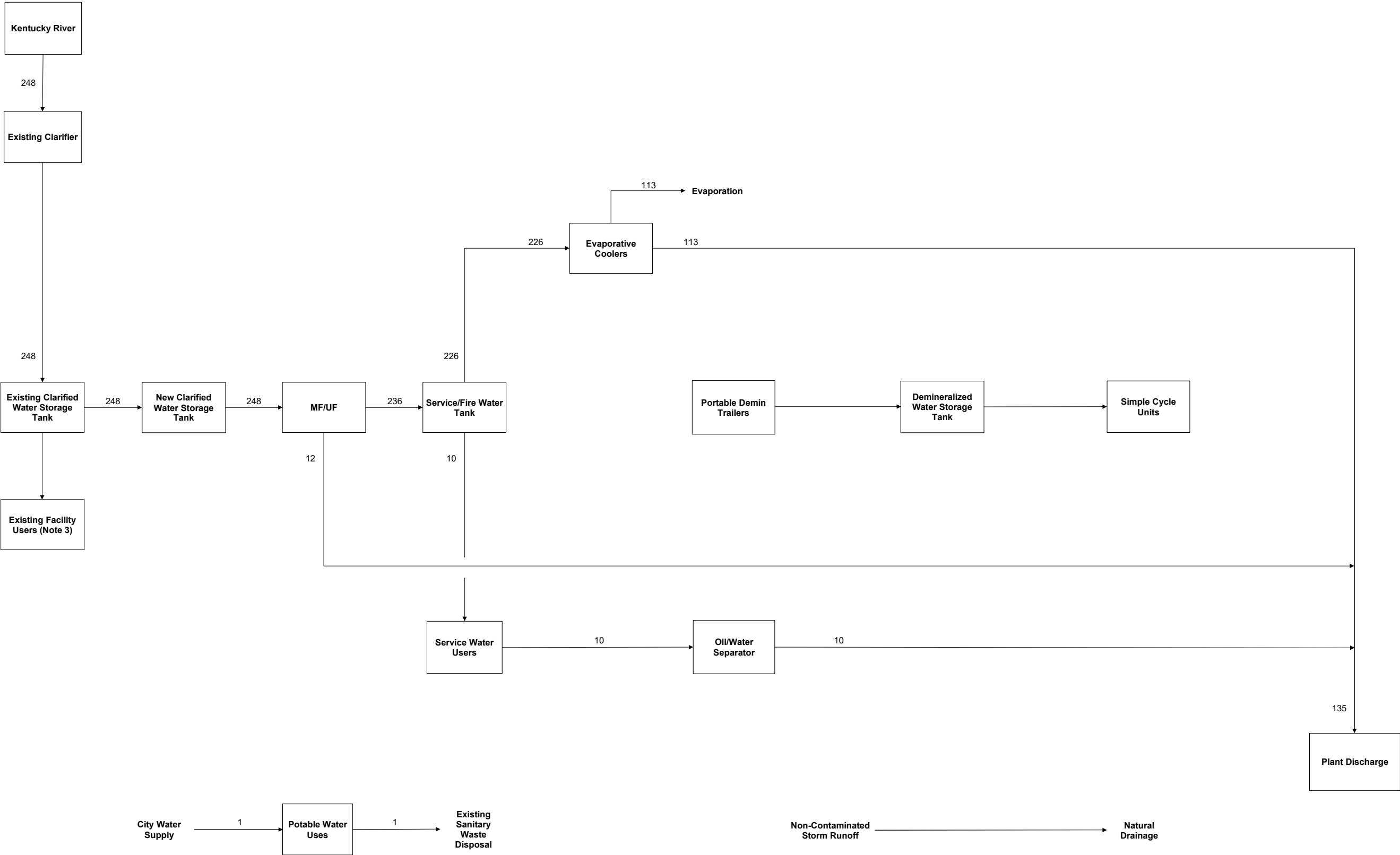
PRELIMINARY



| | | | |
|----------|------------|----------|------------|
| date | 7/24/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | B. Hansen |



| | | | |
|---|----------|----------|---|
| EKPC - TYGART Water Mass Balance - 3x1 5000H Unfired 3x100% 59°F Evap OFF | | | |
| project | 157787 | contract | |
| drawing | WMB - 02 | rev. | 0 |
| sheet | 1 | of | 1 |
| file | | | |




| no. | date | by | ckd | description |
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NOTES:

1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

| | |
|-------------------------|-----|
| DESIGN CRITERIA: | |
| Dry Bulb Temp °F | 110 |
| Wet Bulb Temp °F | 87 |
| Evap Coolers | ON |

PRELIMINARY

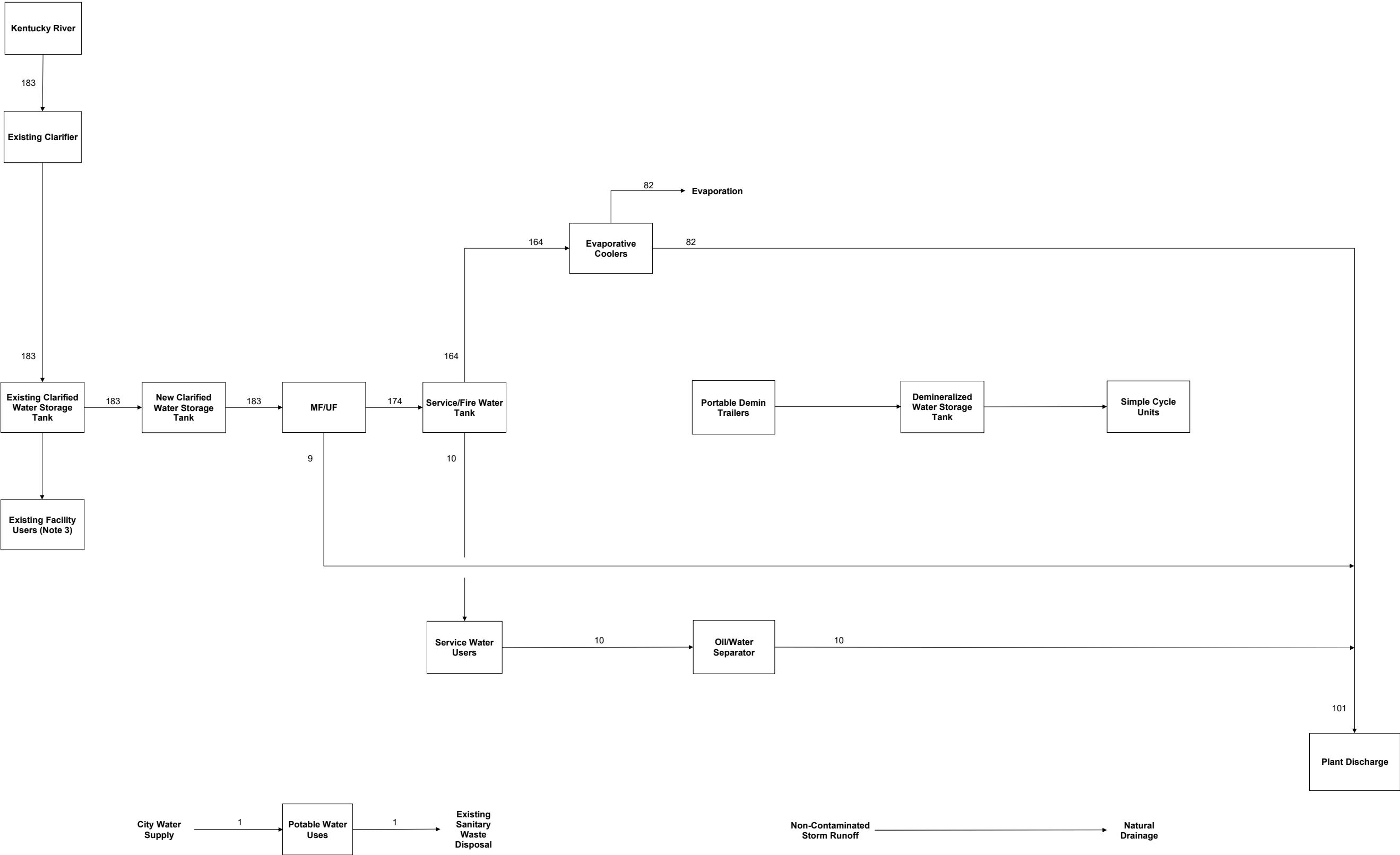


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| date | 6/5/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | |



EKPC - SMITH
Water Mass Balance - SCGT
Extreme Max GTG

| | | | |
|---------|----------|----------|---|
| project | 157787 | contract | |
| drawing | WMB - 01 | rev. | 0 |
| sheet | 1 | of | 1 |
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| no. | date | by | ckd | description |
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NOTES:

1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

| | |
|-------------------------|----|
| DESIGN CRITERIA: | |
| Dry Bulb Temp °F | 95 |
| Wet Bulb Temp °F | 78 |
| Evap Coolers | ON |

PRELIMINARY



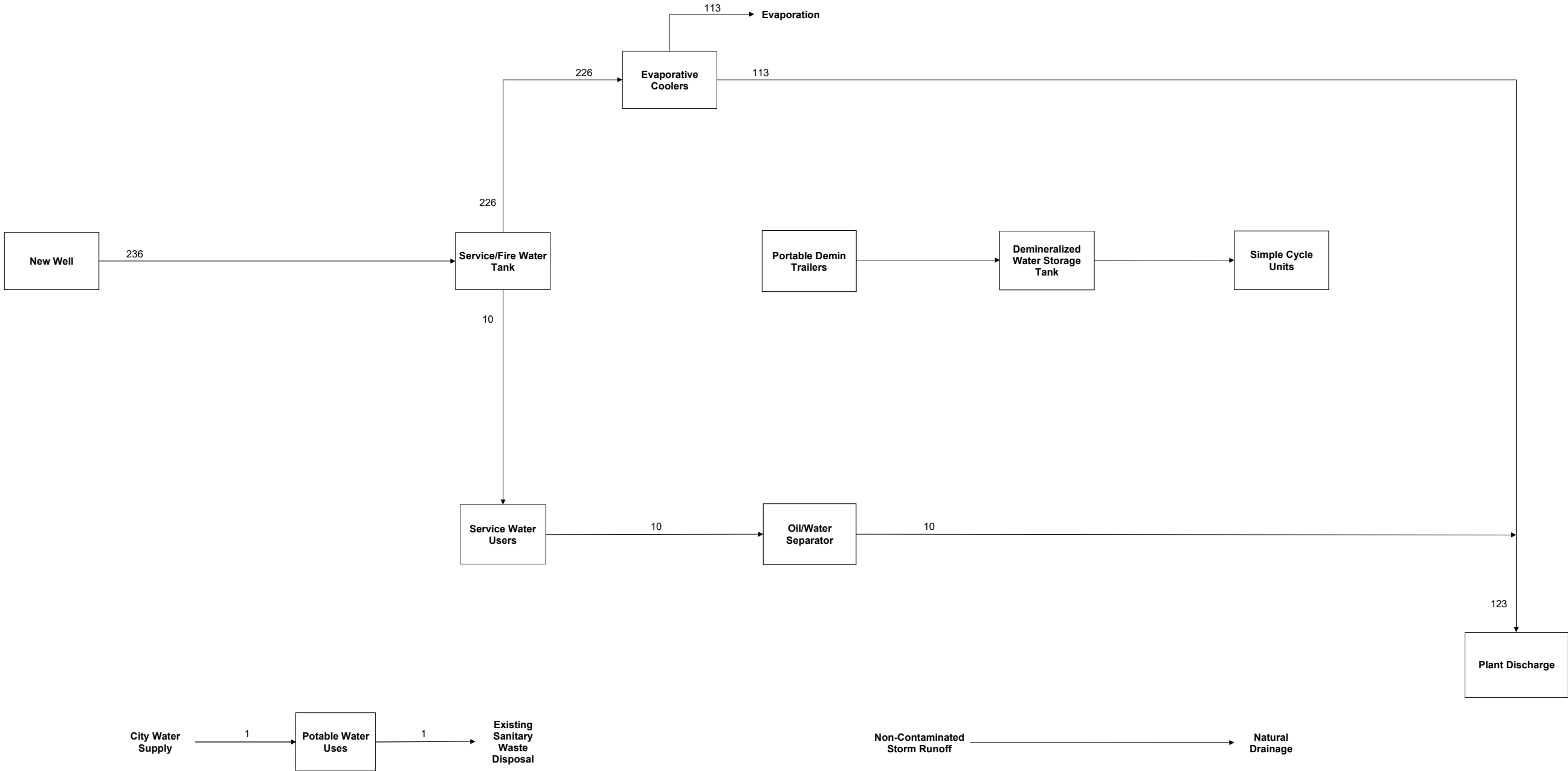
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|----------|------------|----------|------------|
| date | 6/5/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | |



**EKPC - SMITH
Water Mass Balance - SCGT
Summer Case**

| | | | |
|---------|----------|----------|---|
| project | 157787 | contract | |
| drawing | WMB - 02 | rev. | 0 |
| sheet | 1 | of | 1 |
| file | | | |

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| no. | date | by | ckd | description |
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NOTES:

1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

DESIGN CRITERIA:

| | |
|------------------|-----|
| Dry Bulb Temp °F | 110 |
| Wet Bulb Temp °F | 87 |
| Evap Coolers | ON |

PRELIMINARY



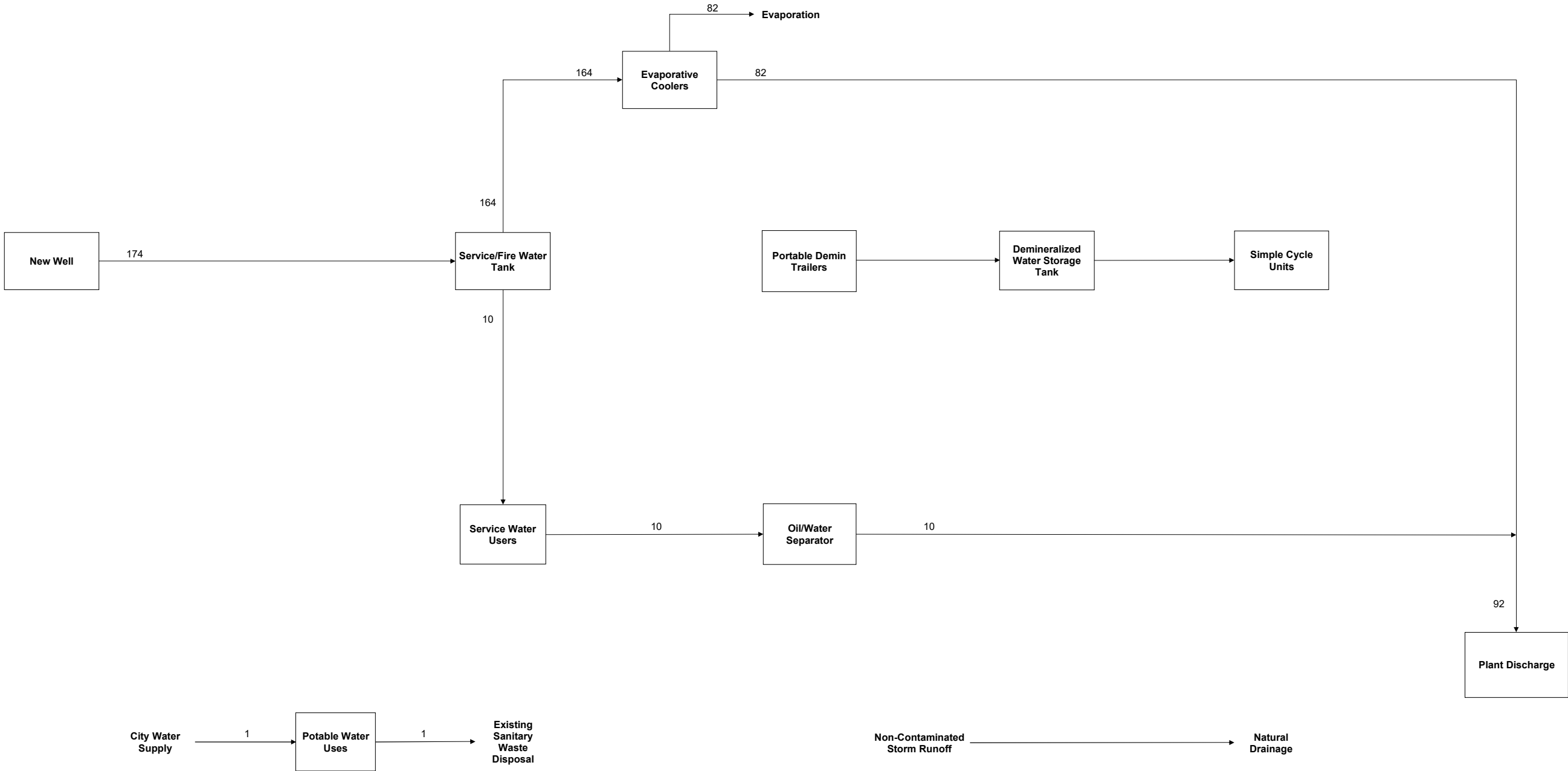
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|----------|------------|----------|------------|
| date | 6/5/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | |



EKPC - Tygart Creek
Water Mass Balance - SCGT
Extreme Max GTG

| | | | |
|---------|----------|----------|---|
| project | 157787 | contract | |
| drawing | WMB - 01 | rev. | 0 |
| sheet | 1 | of | 1 |
| file | | | |

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| no. | date | by | ckd | description |
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NOTES:


1. Flows are shown in gallons per minute (gpm) and rounded to the nearest gpm.
2. Flows are based on average daily conditions.
3. Refer to existing plant water balances for existing flow information. Flows from existing users not included within this water balance.

| | |
|-------------------------|----|
| DESIGN CRITERIA: | |
| Dry Bulb Temp °F | 95 |
| Wet Bulb Temp °F | 78 |
| Evap Coolers | ON |

PRELIMINARY



| | | | |
|----------|------------|----------|------------|
| date | 6/5/2023 | detailed | D. Elliott |
| designed | D. Elliott | checked | |



EAST KENTUCKY POWER COOPERATIVE
A Touchstone Energy Cooperative

EKPC - Tygart Creek
Water Mass Balance - SCGT
Summer Case

| | | | |
|---------|----------|----------|---|
| project | 157787 | contract | |
| drawing | WMB - 02 | rev. | 0 |
| sheet | 1 | of | 1 |
| file | | | |

APPENDIX D – EQUIPMENT LISTS

157785 - Liberty RICE Equipment List

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor | # Qty |
|--|-----------------|------------------|------------------|-------|
| Reciprocating Internal Combustion Engine (RICE) | | | | |
| Charge Air Filter | 5.1150 | 5.8320 | Outdoor | 12 |
| Compact Gas Ramp | 5.1150 | 5.8320 | Indoor | 6 |
| Dosing Unit | 5.1150 | 5.8320 | Indoor | 6 |
| Engine Genset | 5.1150 | 5.1150 | Indoor | 6 |
| Engine Auxiliary Area Platforms | 5.1150 | 5.8320 | Indoor | 6 |
| Engine Auxiliary Module (EAM) | 5.1150 | 5.8320 | Indoor | 6 |
| Engine Platforms | 5.1150 | 5.8320 | Indoor | 6 |
| Exhaust Gas (Nox) Analyzer | 5.1150 | 5.8320 | Outdoor | 6 |
| Exhaust Gas Probe | 5.1150 | 5.8320 | Outdoor | 6 |
| Exhaust Gas Module (EGM) | 5.1150 | 5.8320 | Indoor | 6 |
| Exhaust Gas Module Support Steel | 5.1150 | 5.8320 | Indoor | 6 |
| Exhaust Gas Ventilation Fan | 5.1150 | 5.8320 | Indoor | 6 |
| Exhaust Gas Resonator | 5.1150 | 5.8320 | Outdoor | 6 |
| Exhaust Gas Silencer | 5.1150 | 5.8320 | Outdoor | 6 |
| Expansion Vessels | 5.1150 | 5.8320 | Indoor | 6 |
| Fuel Gas Analyzer Unit | 5.1150 | 5.8320 | Indoor | 1 |
| Generator Duct | 5.1150 | 5.8320 | Indoor | 6 |
| Lube Oil Cooler | 5.1150 | 5.8320 | Indoor | 6 |
| Lube Oil Transfer Pumps | 5.1150 | 5.8320 | Indoor | 2 |
| Mixing Duct | 5.1150 | 5.8320 | Indoor | 6 |
| Mobile Lube Oil Pump | 5.1150 | 5.8320 | Indoor | 1 |
| Modular Pipe Rack | 5.1150 | 5.8320 | Indoor | 6 |
| Nox Sensor System | 5.1150 | 5.8320 | Indoor | 6 |
| Oil Mist Separator Unit | 5.1150 | 5.8320 | Indoor | 6 |
| Radiator Bank | 5.1150 | 5.8320 | Outdoor | 60 |
| Selective Catalytic Reducer (SCR) | 5.1150 | 5.8320 | Outdoor | 6 |
| Urea Supply Pump Skid | 5.1150 | 5.8320 | Indoor | 1 |
| 480V Engine 1 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 2 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 3 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 4 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 5 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 6 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 7 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 8 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 9 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 10 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 11 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| 480V Engine 12 MCC | 5.1150 | 5.8410 | Indoor | 1 |
| BOP 125VDC Battery & UPS | 5.1150 | 5.8410 | Indoor | 1 |
| Fire Water Pumps | | | | |
| Electric Fire Water Pump | 5.2150 | 5.8320 | Indoor | 1 |
| Diesel Fire Water Pump | 5.2150 | 5.8320 | Indoor | 1 |

157785 - Liberty RICE Equipment List

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor | # Qty |
|--|-----------------|------------------|------------------|-------|
| Jockey Pump | 5.2150 | 5.8320 | Indoor | 1 |
| Miscellaneous Pumps | | | | |
| Cooling Water Transfer Pump | 5.2190 | 5.8320 | Indoor | 1 |
| Waste Water Sump Pump | 5.2190 | 5.8320 | Indoor | 1 |
| Service Water Transfer Pumps | 5.2190 | 5.8320 | Indoor | 2 |
| Fuel Oil Unloading Pumps | 5.2190 | 5.8320 | Outdoor | 3 |
| Fuel Oil Forwarding Pumps | 5.2190 | 5.8320 | Outdoor | 3 |
| Control Valves | | | | |
| Gas Pressure Regulating Skid | 5.2530 | 5.8320 | Outdoor | 2 |
| Compressed Air Equipment | | | | |
| Instrument Air Compressors | 5.2710 | 5.8320 | Indoor | 2 |
| Instrument Air Dryer | 5.2710 | 5.8320 | Indoor | 2 |
| Starting Air Compressors | | | | |
| Starting Air Compressors | 5.2711 | 5.8320 | Indoor | 2 |
| Fuel Gas Conditioning | | | | |
| Gas Filter/Coalescer Skid | 5.2762 | 5.8320 | Outdoor | 1 |
| Fuel Gas Heating | | | | |
| Fuel Gas Heater Skid | 5.2763 | 5.8320 | Outdoor | 1 |
| Fuel Oil Heater Skid | 5.2763 | 5.8320 | Outdoor | 1 |
| Oil/Water Separator | | | | |
| Oil/Water Separator | 5.2940 | 5.8220 | Outdoor | 1 |
| Oil/Water Separator Pumps | 5.2940 | 5.8220 | Outdoor | 2 |
| Shop Fabricated Metallic Tanks | | | | |
| New Oil Tank | 5.2980 | 5.8320 | Indoor | 1 |
| Service/Used Oil Tank | 5.2980 | 5.8320 | Indoor | 1 |
| Waste Water Tank | 5.2980 | 5.8320 | Indoor | 1 |
| Maintenance Water Tank | 5.2980 | 5.8320 | Indoor | 1 |
| Dry Air Receiver | 5.2980 | 5.8320 | Indoor | 1 |
| Wet Air Receiver | 5.2980 | 5.8320 | Indoor | 1 |
| Starting Air Receiver | 5.2980 | 5.8320 | Indoor | 2 |
| Shop-Fabricated FRP Tanks | | | | |
| Urea Storage Tank | 5.2982 | 5.8320 | Indoor | 1 |
| Sanitary Treatment System | | | | |
| Sanitary Treatment System | 5.3430 | 5.8320 | Indoor | 1 |
| Pre-Engineered Metal Building | | | | |
| Engine Hall | 5.4310 | 5.8320 | Outdoor | 1 |
| Electrical Equipment Enclosures | 5.4310 | 5.8320 | Outdoor | 1 |
| Warehouse | 5.4310 | 5.8320 | Outdoor | 1 |
| Bridge Crane | | | | |
| 6-ton Bridge Crane | 5.4312 | 5.8320 | Indoor | 1 |
| 1-ton Monorail Crane | 5.4312 | 5.8320 | Indoor | 1 |
| Vent Fans | | | | |
| Generator Side Fans | 5.4440 | 5.8320 | Indoor | - |
| Auxiliary Side Fans | 5.4440 | 5.8320 | Indoor | - |
| Gravity Ridge Vent | | | | |
| Engine Hall Ridge Vent | 5.4441 | 5.8320 | Indoor | - |
| Precast Concrete Firewalls | | | | |
| Concrete Firewalls around GSU Transformers | 5.4515 | 5.8320 | Outdoor | - |
| Structural Steel | | | | |
| Cable Bus Support Steel | 5.4520 | 5.8320 | Both | - |

157785 - Liberty RICE Equipment List

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor | # Qty |
|---|-----------------|------------------|------------------|-------|
| Charge Air Filter & Mix Duct Support Structures and Platforming | 5.4520 | 5.8320 | Outdoor | - |
| SCR and Resonator Support Structures and Platforming | 5.4520 | 5.8320 | Outdoor | - |
| Silencer & Ductwork Support Structure and Platforming | 5.4520 | 5.8320 | Outdoor | - |
| Radiator Support Structures and Platforming | 5.4520 | 5.8320 | Outdoor | - |
| Tank Enclosure Platforming Structures | 5.4520 | 5.8320 | Indoor | - |
| Pipe Rack Structures | 5.4520 | 5.8320 | Both | - |
| High Voltage Breaker Support Structures | 5.4520 | 5.8320 | Outdoor | - |
| Generating Step-Up Transformer Platforming Structures | 5.4520 | 5.8320 | Outdoor | - |
| SCR exhaust ducts | 5.4520 | 5.8320 | Outdoor | 7 |
| Header exhaust ducts | 5.4520 | 5.8320 | Outdoor | 2 |
| Rupture disk cages (Weather Covers) | 5.4520 | 5.8320 | Outdoor | 20 |
| Misc Pipe and Cable Tray Supplemental Steel Supports | 5.4520 | 5.8320 | Both | - |
| Ductwork and Breeching | | | | |
| Charge Air Ducts | 5.4540 | 5.8320 | Indoor | 24 |
| Ductwork Expansion Joints | | | | |
| Metal Bellows | 5.4550 | 5.8320 | Indoor | 24 |
| Generator Step-up Transformers | | | | |
| Generator Step-Up Transformer 1 | 5.5110 | 5.5110 | Outdoor | 1 |
| Generator Step-Up Transformer 2 | 5.5110 | 5.5110 | Outdoor | 1 |
| Emergency Generator | | | | |
| Auxiliary Generator | 5.5240 | 5.8410 | Outdoor | 1 |
| Medium Voltage & Low Voltage Switchgear & Relay Panels | | | | |
| 13.8kV Generator Switchgear 1 | 5.5310 | 5.8410 | Indoor | 1 |
| 13.8kV Generator Switchgear 2 | 5.5310 | 5.8410 | Indoor | 1 |
| 13.8kV Generator Switchgear 3 | 5.5310 | 5.8410 | Indoor | 1 |
| 13.8kV Generator Switchgear 4 | 5.5310 | 5.8410 | Indoor | 1 |
| Station Auxiliary Transformer 1 | 5.5310 | 5.8410 | Outdoor | 1 |
| Station Auxiliary Transformer 2 | 5.5310 | 5.8410 | Outdoor | 1 |
| Station Auxiliary Transformer 3 | 5.5310 | 5.8410 | Outdoor | 1 |
| Station Auxiliary Transformer 4 | 5.5310 | 5.8410 | Outdoor | 1 |
| 480V Switchgear 1 | 5.5310 | 5.8410 | Indoor | 1 |
| 480V Switchgear 2 | 5.5310 | 5.8410 | Indoor | 1 |
| 480V Switchgear 3 | 5.5310 | 5.8410 | Indoor | 1 |
| 480V Switchgear 4 | 5.5310 | 5.8410 | Indoor | 1 |
| 480V Motor Control Centers | | | | |
| 480V BOP MCC 1 | 5.5330 | 5.8410 | Indoor | 1 |
| 480V BOP MCC 2 | 5.5330 | 5.8410 | Indoor | 1 |
| 125VDC Batteries, Charger & UPS | | | | |
| 125VDC Batteries, Disconnects, Switchboard, Bypass Transformer & Chargers | 5.5430 | 5.8410 | Indoor | - |
| UPS, Inverter & Bypass Switch | 5.5430 | 5.8410 | Indoor | - |
| Instruments | | | | |
| Instruments | 5.6210 | 5.8320 | Indoor / Outdoor | - |
| Fuel Gas Chromatograph | | | | |
| Fuel Gas Chromatograph System | 5.6211 | 5.8320 | Outdoor | 1 |
| Substation Package | | | | |
| Surge Arrestors | 5.7200 | 5.8411 | Outdoor | - |
| Capacitor Voltage Transformers (CCVT) | 5.7200 | 5.8411 | Outdoor | - |
| Disconnect Switches | 5.7200 | 5.8411 | Outdoor | - |
| Insulators (Substation) | 5.7200 | 5.8411 | Outdoor | - |
| Conductor (HV Cable in Substation) | 5.7200 | 5.8411 | Outdoor | - |
| Terminals, Connectors & Bus Supports | 5.7200 | 5.8411 | Outdoor | - |
| CCVT Junction Box Assemblies | 5.7200 | 5.8411 | Outdoor | - |
| T-Line Insulators | 5.7200 | 5.8411 | Outdoor | - |
| Mechanical Construction (Misc. Pumps, Specials, HVAC) | | | | |
| Service Water Bladder Tank | 5.8320 | 5.8320 | Indoor | 1 |

157785 - Liberty RICE Equipment List

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor | # Qty |
|------------------------------------|-----------------|------------------|------------------|-------|
| Potable Water Booster Pump | 5.8320 | 5.8320 | Indoor | 1 |
| Potable Water Heater | 5.8320 | 5.8320 | Indoor | 2 |
| Emergency Eye Wash / Safety Shower | 5.8320 | 5.8320 | Indoor | 4 |
| Lift Station | 5.8220 | 5.8220 | Outdoor | 1 |
| Lube Oil Cartridge Filter | 5.8320 | 5.8320 | Indoor | 1 |
| Lube Oil Tank Heater | 5.8320 | 5.8320 | Indoor | 1 |
| Space Conditioning | | | | |
| Admin Room(s) Air Handling Units | 5.8340 | 5.8340 | Indoor | 5 |
| Admin Room(s) Air Terminal Units | 5.8340 | 5.8340 | Indoor | 5 |
| Building Intake Louvers | 5.8340 | 5.8340 | Indoor | 12 |
| Building Exhaust Fans | 5.8340 | 5.8340 | Indoor | 10 |
| Building Electric Heaters | 5.8340 | 5.8340 | Indoor | 30 |
| Field Erected Tanks | | | | |
| Fire Water Tank | 5.8570 | 5.8570 | Outdoor | 1 |
| Tank Immersion Heater | 5.8570 | 5.8570 | Outdoor | 2 |
| Fuel Oil Tank | 5.8570 | 5.8570 | Outdoor | 2 |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| AMMONIA TOTE | OWNER | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEMICAL TOTE | OWNER | 5.8320 | INDOOR |
| NITROGEN BOTTLE RACK | OWNER | 5.8320 | OUTDOOR |
| OFF-SITE SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| ON-SITE SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| OXYGEN SCAVENGER TOTE | OWNER | 5.8320 | INDOOR |
| RO ANTI-SCALANT TOTE | OWNER | 5.8320 | INDOOR |
| RO SODIUM BISULFITE TOTE | OWNER | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE TOTE | OWNER | 5.8320 | INDOOR |
| RO SULFURIC ACID TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB CITRIC ACID TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB SODIUM HYDROXIDE TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| UNIT 1 PHOSPHATE TOTE | OWNER | 5.8320 | INDOOR |
| UNIT 2 PHOSPHATE TOTE | OWNER | 5.8320 | INDOOR |
| STEAM TURBINE GENERATOR (STG) | 5.1110 | 5.8320 | INDOOR |
| STG HOTBOX | 5.1110 | 5.8320 | INDOOR |
| STG HP/IP TURBINE | 5.1110 | 5.8320 | INDOOR |
| STG LP TURBINE | 5.1110 | 5.8320 | INDOOR |
| STG BEARING LIFT OIL FILTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL FILTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL PUMP 1 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL PUMP 2 | 5.1110 | 5.1110 | INDOOR |
| STG EMERGENCY LUBE OIL PUMP | 5.1110 | 5.1110 | INDOOR |
| STG LUBE OIL COOLER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL COOLER 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL FILTER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL FILTER 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL MODULE/TANK | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL PUMP 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL PUMP 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUST OIL SEPARATOR | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUSTER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUSTER 2 | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT HEATER | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT PUMP | 5.1110 | 5.8320 | INDOOR |
| STG GLAND STEAM CONDENSER | 5.1110 | 5.8320 | INDOOR |
| STG GLAND STEAM EXHAUSTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG GLAND STEAM EXHAUSTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC OIL UNIT/TANK | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING CIRCULATION PUMP 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING CIRCULATION PUMP 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING FAN 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING FAN 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL FILTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL FILTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL HEATER | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL PUMP 1 | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL PUMP 2 | 5.1110 | 5.8320 | INDOOR |
| STG TRANSFORMER SEE | 5.1110 | 5.8410 | INDOOR |
| STG TRANSFORMER SEE PACKAGE | 5.1110 | 5.8410 | INDOOR |
| STG VT SURGE CUBICLE | 5.1110 | 5.8410 | INDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| COMMON GT WATER WASH SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - UNIT 1 | 5.1120 | 5.8320 | INDOOR |
| GT1 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT1 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT1 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT1 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT1 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT1 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT1 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT1 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT1 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT1 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - UNIT 2 | 5.1120 | 5.8320 | INDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT2 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT2 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT2 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT2 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT2 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT2 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT2 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT2 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT2 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT2 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| HRSG1 | 5.1215 | 5.8320 | INDOOR |
| HRSG1 AIG BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG1 AIG BLOWER B | 5.1215 | 5.8320 | INDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| HRSG1 BLOWDOWN TANK | 5.1215 | 5.8320 | INDOOR |
| HRSG1 CONDENSATE RECIRCULATION PUMP | 5.1215 | 5.8320 | INDOOR |
| HRSG1 COOLING BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG1 COOLING BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG1 EXHAUST STACK | 5.1215 | 5.8320 | INDOOR |
| HRSG1 CEMS SHELTER ANALYZER CABINET | 5.1215 | 5.8320 | OUTDOOR |
| GTG1 CEMS ANALYZER CABINET | 5.1215 | 5.8410 | INDOOR |
| GT1 LP CO2 COMPRESSOR FEED 1 | 5.1215 | 5.8320 | INDOOR |
| GT1 LP CO2 COMPRESSOR FEED 2 | 5.1215 | 5.8320 | INDOOR |
| HRSG1 MOV5 | 5.1215 | 5.8320 | INDOOR |
| HRSG2 | 5.1215 | 5.8320 | INDOOR |
| HRSG2 AIG BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG2 AIG BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG2 BLOWDOWN TANK | 5.1215 | 5.8320 | INDOOR |
| HRSG2 CONDENSATE RECIRCULATION PUMP | 5.1215 | 5.8320 | INDOOR |
| HRSG2 COOLING BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG2 COOLING BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG2 EXHAUST STACK | 5.1215 | 5.8320 | INDOOR |
| HRSG2 CEMS SHELTER ANALYZER CABINET | 5.1215 | 5.8320 | OUTDOOR |
| GTG2 CEMS ANALYZER CABINET | 5.1215 | 5.8410 | INDOOR |
| GT2 LP CO2 COMPRESSOR FEED 1 | 5.1215 | 5.8320 | INDOOR |
| GT2 LP CO2 COMPRESSOR FEED 2 | 5.1215 | 5.8320 | INDOOR |
| HRSG2 MOV5 | 5.1215 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 1A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 1B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 1A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 1B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 2A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 2B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 2A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 2B | 5.2110 | 5.8320 | INDOOR |
| CONDENSATE PUMP A | 5.2130 | 5.8320 | INDOOR |
| CONDENSATE PUMP B | 5.2130 | 5.8320 | INDOOR |
| CONDENSATE PUMP C | 5.2130 | 5.8320 | INDOOR |
| DIESEL FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| ELECTRIC FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| JOCKEY FIRE PUMP AND ENCLOSURE FEED | 5.2150 | 5.8320 | INDOOR |
| WASTEWATER SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 1 HRSG BLOWDOWN SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 1 HRSG BLOWDOWN SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 2 HRSG BLOWDOWN SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 2 HRSG BLOWDOWN SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| CLARIFIED WATER TRANSFER PUMP A | 5.2180 | 5.8320 | INDOOR |
| CLARIFIED WATER TRANSFER PUMP B | 5.2180 | 5.8320 | INDOOR |
| FUEL OIL FORWARDING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL TRANSFER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL TRANSFER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| POWERHOUSE SANITARY LIFT STATION | 5.2191 | 5.8220 | OUTDOOR |
| WAREHOUSE/ADMIN SANITARY LIFT STATION | 5.2191 | 5.8220 | OUTDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| AIR-COOLED HEAT EXCHANGER (ACHE) | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 1 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 10 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 11 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 12 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 13 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 14 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 15 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 16 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 17 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 18 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 19 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 2 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 20 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 21 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 22 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 23 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 24 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 3 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 4 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 5 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 6 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 7 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 8 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 9 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED CONDENSER (ACC) | 5.2230 | 5.8320 | OUTDOOR |
| ACC DUCT DRAIN POT PUMP A | 5.2230 | 5.8320 | OUTDOOR |
| ACC DUCT DRAIN POT PUMP B | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--------------------------------|-----------------|------------------|------------------|
| ACC STREET 2 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| ACC STREET 6 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| CONDENSATE STORAGE TANK | 5.2230 | 5.8320 | INDOOR |
| DEAERATOR EJECTOR | 5.2230 | 5.8320 | INDOOR |
| ACC CLEANING WATER PUMP SKID | 5.2230 | 5.8320 | OUTDOOR |
| LIQUID RING VACUUM PUMP (LRVP) A | 5.2230 | 5.8320 | INDOOR |
| LRVP PLATE AND FRAME HEAT EXCHANGER A | 5.2230 | 5.8320 | INDOOR |
| LRVP RECIRCULATION PUMP A | 5.2230 | 5.8320 | INDOOR |
| LRVP SEPARATOR TANK A | 5.2230 | 5.8320 | INDOOR |
| LIQUID RING VACUUM PUMP (LRVP) B | 5.2230 | 5.8320 | INDOOR |
| LRVP PLATE AND FRAME HEAT EXCHANGER B | 5.2230 | 5.8320 | INDOOR |
| LRVP RECIRCULATION PUMP B | 5.2230 | 5.8320 | INDOOR |
| LRVP SEPARATOR TANK B | 5.2230 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANK 2 | 5.2490 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANK 3 | 5.2490 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANK 4 | 5.2490 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANK 5 | 5.2490 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANK 6 | 5.2490 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANK 7 | 5.2490 | 5.8320 | OUTDOOR |
| AIR COMPRESSOR A | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR B | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR C | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER A | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER B | 5.2710 | 5.8320 | INDOOR |
| AQUEOUS AMMONIA STORAGE TANK | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA UNLOADING SKID | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP A | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP B | 5.2750 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS REGULATING/METERING SKID | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR SKID | 5.2762 | 5.8320 | OUTDOOR |
| DRAINS TANK | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| AUXILIARY BOILER | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER BLOWDOWN TANK | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER DEAERATOR | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FD FAN | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FEEDWATER PUMP A | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FEEDWATER PUMP B | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY STEAM ELECTRIC SUPERHEATER | 5.2910 | 5.8320 | INDOOR |
| WASH WATER DRAINS TANK | 5.2940 | 5.8320 | OUTDOOR |
| OIL WATER SEPARATOR | 5.2940 | 5.8220 | OUTDOOR |
| OIL WATER SEPARATOR PUMP A | 5.2940 | 5.8220 | OUTDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| OIL WATER SEPARATOR PUMP B | 5.2940 | 5.8220 | OUTDOOR |
| SANITARY LIFT STATION PUMP A | 5.2940 | 5.8220 | OUTDOOR |
| SANITARY LIFT STATION PUMP B | 5.2940 | 5.8220 | OUTDOOR |
| DRY AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| WET AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVERS | 5.2980 | 5.8320 | INDOOR |
| CLOSED COOLING WATER HEAD TANK | 5.2980 | 5.8320 | OUTDOOR |
| STG FLASH TANK | 5.2980 | 5.8320 | INDOOR |
| STG ATM DRAINS TANK | 5.2980 | 5.8320 | INDOOR |
| OFF-SITE SODIUM HYPOCHLORITE FEED SKID | 5.3120 | 5.8320 | INDOOR |
| OFF-SITE SODIUM HYPOCHLORITE FEED PUMP A | 5.3120 | 5.8320 | INDOOR |
| OFF-SITE SODIUM HYPOCHLORITE FEED PUMP B | 5.3120 | 5.8320 | INDOOR |
| HP PHOSPHATE TRANSFER PUMP | 5.3120 | 5.8320 | INDOOR |
| HP/IP PHOSPHATE TRANSFER PUMP | 5.3120 | 5.8320 | INDOOR |
| IP PHOSPHATE TRANSFER PUMP | 5.3120 | 5.8320 | INDOOR |
| HP PHOSPHATE TRANSFER PUMP | 5.3120 | 5.8320 | INDOOR |
| HP/IP PHOSPHATE TRANSFER PUMP | 5.3120 | 5.8320 | INDOOR |
| IP PHOSPHATE TRANSFER PUMP | 5.3120 | 5.8320 | INDOOR |
| AMMONIA CHEMICAL SKID | 5.3210 | 5.8320 | INDOOR |
| AMMONIA FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| AMMONIA FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED SKID | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEMICAL SKID | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEM FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEM FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE SHELTER HOUSE | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE TRANSFER PUMP A | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE TRANSFER PUMP B | 5.3210 | 5.8320 | INDOOR |
| HRSG 1 HP/IP PHOSPHATE SKID | 5.3210 | 5.8320 | INDOOR |
| HRSG 2 HP/IP PHOSPHATE SKID | 5.3210 | 5.8320 | INDOOR |
| RO RINSE PUMP A | 5.3210 | 5.8320 | INDOOR |
| RO RINSE PUMP B | 5.3210 | 5.8320 | INDOOR |
| RO SODIUM BISULFITE FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| RO SODIUM BISULFITE FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| RO ANTI-SCALANT FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| RO ANTI-SCALANT FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE PUMP A | 5.3210 | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE PUMP B | 5.3210 | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE PUMP C | 5.3210 | 5.8320 | INDOOR |
| RO ACID FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| RO ACID FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| AUTOMATIC BACKWASH STRAINER & OIL/GREASE CARTRIDGE FILTER SKID | 5.3210 | 5.8320 | INDOOR |
| ABW STRAINER A | 5.3210 | 5.8320 | INDOOR |
| ABW STRAINER B | 5.3210 | 5.8320 | INDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| OIL/GREASE CARTRIDGE FILTER A | 5.3210 | 5.8320 | INDOOR |
| OIL/GREASE CARTRIDGE FILTER B | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN A | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN B | 5.3210 | 5.8320 | INDOOR |
| ULTRAFILTRATION (UF) BACKWASH PUMP SKID | 5.3210 | 5.8320 | INDOOR |
| UF BACKWASH PUMP A | 5.3210 | 5.8320 | INDOOR |
| UF BACKWASH PUMP B | 5.3210 | 5.8320 | INDOOR |
| UF CHEMICAL ENHANCED BACKWASH (CEB) SODIUM HYDROXIDE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYDROXIDE PUMP A | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYDROXIDE PUMP B | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE PUMP A | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE PUMP B | 5.3210 | 5.8320 | INDOOR |
| UF CEB CITRIC ACID FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB CITRIC ACID PUMP A | 5.3210 | 5.8320 | INDOOR |
| UF CEB CITRIC ACID PUMP B | 5.3210 | 5.8320 | INDOOR |
| UF BACKWASH TANK | 5.3210 | 5.8320 | INDOOR |
| CALCITE FILTERS | 5.3210 | 5.8320 | INDOOR |
| CALCITE FILTER | 5.3210 | 5.8320 | INDOOR |
| MIXED BED VALVE MANIFOLD | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL A | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL B | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL C | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL D | 5.3220 | 5.8320 | INDOOR |
| REVERSE OSMOSIS (RO) TRAIN A | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO FILTER A | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO BOOSTER PUMP A | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO FILTER A | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO BOOSTER PUMP A | 5.3220 | 5.8320 | INDOOR |
| RO CARTRIDGE FILTER A | 5.3220 | 5.8320 | INDOOR |
| REVERSE OSMOSIS (RO) TRAIN B | 5.3220 | 5.8320 | INDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

[illegible]

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| POWER BLOCK BUILDING FAN | 5.4310B | 5.4310B | OUTDOOR |
| POWER BLOCK BUILDING FAN | 5.4310B | 5.4310B | OUTDOOR |
| POWER BLOCK BUILDING FAN | 5.4310B | 5.4310B | OUTDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATER (GUH) | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATER (GUH) | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATER (GUH) | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATER (GUH) | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATER (GUH) | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| POWER BLOCK BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATER (EUH) | 5.4310B | 5.4310B | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATER (EUH) | 5.4310B | 5.4310B | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATER (EUH) | 5.4310B | 5.4310B | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATER (EUH) | 5.4310B | 5.4310B | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATER (EUH) | 5.4310B | 5.4310B | INDOOR |
| WATER TREATMENT BUILDING FAN | 5.4310B | 5.4310B | OUTDOOR |
| WATER TREATMENT BUILDING LOUVER | 5.4310B | 5.4310B | INDOOR |
| WATER TREATMENT BUILDING SELF-CONTAINED AIR-CONDITIONING UNIT (SAU) | 5.4310B | 5.4310B | OUTDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNIT (VAV) | 5.4311 | 5.4311 | INDOOR |
| ADMINISTRATION BUILDING ROOF TOP UNIT (RTU) | 5.4311 | 5.4311 | OUTDOOR |
| GTG1 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| STG GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---------------------------------|-----------------|------------------|--------------------|
| GTG1 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG2 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| STG GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG1 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG2 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STG ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STANDBY DIESEL GENERATOR | 5.5240 | 5.8410 | OUTDOOR |
| 4160V SWGR A | 5.5310 | 5.8410 | INDOOR |
| 4160V SWGR B | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 1 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 2 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 3 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 4 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 5 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 6 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ACC STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP MCC 1 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 2 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 3 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 4 | 5.5310 | 5.8410 | INDOOR |
| ESS 480V SWGR A | 5.5310 | 5.8410 | INDOOR |
| ESS STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR B | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR C | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR D | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| STG 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| STG STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| STG 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| STG STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| WT 480V SWGR A | 5.5310 | 5.8410 | INDOOR |
| WT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| WT 480V SWGR B | 5.5310 | 5.8410 | INDOOR |

157787 - SMITH 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| WT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 MCC | 5.5310 | 5.8410 | INDOOR |
| HRSG1 MCC | 5.5310 | 5.8410 | INDOOR |
| HRSG2 MCC | 5.5310 | 5.8410 | INDOOR |
| STG MCC | 5.5310 | 5.8410 | INDOOR |
| UPS AND 125VDC SYSTEM | 5.5310 | 5.8410 | INDOOR |
| WATER TREATMENT MCC | 5.5310 | 5.8410 | INDOOR |
| PLANT COMMUNICATIONS EQUIPMENT (GAITRONICS) | 5.5670 | 5.8410 | INDOOR |
| DCS (BOP) | 5.6110 | 5.8410 | INDOOR |
| FUEL GAS CHROMATOGRAPH | 5.6211 | 5.8320 | OUTDOOR |
| POWER BLOCK BUILDING AIR HANDLING UNITS (AHU) | 5.8340 | 5.8340 | INDOOR |
| POWER BLOCK BUILDING FANS | 5.8340 | 5.8340 | OUTDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATERS (GUH) | 5.8340 | 5.8340 | INDOOR |
| POWER BLOCK BUILDING LOUVERS | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATERS (EUH) | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING FANS | 5.8340 | 5.8340 | OUTDOOR |
| WATER TREATMENT BUILDING LOUVERS | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING SELF-CONTAINED AIR-CONDITIONING UNITS (SAU) | 5.8340 | 5.8340 | OUTDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNITS (VAV) | 5.8340 | 5.8340 | INDOOR |
| ADMINISTRATION BUILDING FAN | 5.8340 | 5.8340 | OUTDOOR |
| ADMINISTRATION BUILDING ROOF TOP UNITS (RTU) | 5.8340 | 5.8340 | OUTDOOR |
| MAINTENANCE SHOP FAN | 5.8340 | 5.8340 | OUTDOOR |
| MAINTENANCE SHOP GAS UNIT HEATER (GUH) | 5.8340 | 5.8340 | INDOOR |
| MAINTENANCE SHOP LOUVER | 5.8340 | 5.8340 | INDOOR |
| MAINTENANCE SHOP/WAREHOUSE MAKE-UP AIR UNIT (MAU) | 5.8340 | 5.8340 | OUTDOOR |
| WAREHOUSE FAN | 5.8340 | 5.8340 | OUTDOOR |
| WAREHOUSE GAS UNIT HEATER (GUH) | 5.8340 | 5.8340 | INDOOR |
| WAREHOUSE LOUVER | 5.8340 | 5.8340 | INDOOR |
| GT1 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT2 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| STG GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| DEMINERALIZED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK HEATERS | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK HEATER | 5.8570 | 5.8570 | OUTDOOR |
| CLARIFIED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK A | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK B | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK HEATER | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK HEATER | 5.8570 | 5.8570 | OUTDOOR |

157787 - COOPER 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| AMMONIA TOTE | OWNER | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEMICAL TOTE | OWNER | 5.8320 | INDOOR |
| NITROGEN BOTTLE RACK | OWNER | 5.8320 | OUTDOOR |
| OFF-SITE SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| ON-SITE SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| OXYGEN SCAVENGER TOTE | OWNER | 5.8320 | INDOOR |
| RO ANTI-SCALANT TOTE | OWNER | 5.8320 | INDOOR |
| RO SODIUM BISULFITE TOTE | OWNER | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE TOTE | OWNER | 5.8320 | INDOOR |
| RO SULFURIC ACID TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB CITRIC ACID TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB SODIUM HYDROXIDE TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| COOLING TOWER POLYMER TOTE | OWNER | 5.8320 | INDOOR |
| COOLING TOWER CORROSION INHIBITOR TOTE | OWNER | 5.8320 | INDOOR |
| COOLING TOWER SCALE INHIBITOR TOTE | OWNER | 5.8320 | INDOOR |
| UNIT 1 PHOSPHATE TOTE | OWNER | 5.8320 | INDOOR |
| UNIT 2 PHOSPHATE TOTE | OWNER | 5.8320 | INDOOR |
| STEAM TURBINE GENERATOR (STG) | 5.1110 | 5.8320 | INDOOR |
| STG HOTBOX | 5.1110 | 5.8320 | INDOOR |
| STG HP/IP TURBINE | 5.1110 | 5.8320 | INDOOR |
| STG LP TURBINE | 5.1110 | 5.8320 | INDOOR |
| STG BEARING LIFT OIL FILTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL FILTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL PUMP 1 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL PUMP 2 | 5.1110 | 5.1110 | INDOOR |
| STG EMERGENCY LUBE OIL PUMP | 5.1110 | 5.1110 | INDOOR |
| STG LUBE OIL COOLER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL COOLER 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL FILTER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL FILTER 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL MODULE/TANK | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL PUMP 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL PUMP 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUST OIL SEPARATOR | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUSTER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUSTER 2 | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT HEATER | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT PUMP | 5.1110 | 5.8320 | INDOOR |
| STG GLAND STEAM CONDENSER | 5.1110 | 5.8320 | INDOOR |
| STG GLAND STEAM EXHAUSTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG GLAND STEAM EXHAUSTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC OIL UNIT/TANK | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING CIRCULATION PUMP 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING CIRCULATION PUMP 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING FAN 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING FAN 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL FILTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL FILTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL HEATER | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL PUMP 1 | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL PUMP 2 | 5.1110 | 5.8320 | INDOOR |

157787 - COOPER 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| STG TRANSFORMER SEE | 5.1110 | 5.8410 | INDOOR |
| STG TRANSFORMER SEE PACKAGE | 5.1110 | 5.8410 | INDOOR |
| STG VT SURGE CUBICLE | 5.1110 | 5.8410 | INDOOR |
| COMMON GT WATER WASH SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - UNIT 1 | 5.1120 | 5.8320 | INDOOR |
| GT1 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT1 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT1 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT1 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT1 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT1 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT1 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT1 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT1 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT1 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - UNIT 2 | 5.1120 | 5.8320 | INDOOR |
| GT2 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT2 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT2 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT2 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT2 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT2 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT2 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT2 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT2 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT2 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| HRSG1 | 5.1215 | 5.8320 | INDOOR |
| HRSG1 AIG BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG1 AIG BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG1 BLOWDOWN TANK | 5.1215 | 5.8320 | INDOOR |
| HRSG1 CONDENSATE RECIRCULATION PUMP | 5.1215 | 5.8320 | INDOOR |
| HRSG1 COOLING BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG1 COOLING BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG1 EXHAUST STACK | 5.1215 | 5.8320 | INDOOR |
| HRSG1 CEMS SHELTER ANALYZER CABINET | 5.1215 | 5.8320 | OUTDOOR |
| GTG1 CEMS ANALYZER CABINET | 5.1215 | 5.8410 | INDOOR |
| HRSG2 | 5.1215 | 5.8320 | INDOOR |
| HRSG2 AIG BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG2 AIG BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG2 BLOWDOWN TANK | 5.1215 | 5.8320 | INDOOR |
| HRSG2 CONDENSATE RECIRCULATION PUMP | 5.1215 | 5.8320 | INDOOR |
| HRSG2 COOLING BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG2 COOLING BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG2 EXHAUST STACK | 5.1215 | 5.8320 | INDOOR |
| HRSG2 CEMS SHELTER ANALYZER CABINET | 5.1215 | 5.8320 | OUTDOOR |
| GTG2 CEMS ANALYZER CABINET | 5.1215 | 5.8410 | INDOOR |
| BOILER FEEDWATER PUMP 1A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 1B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 1A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 1B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 2A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 2B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 2A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 2B | 5.2110 | 5.8320 | INDOOR |
| AUXILIARY COOLING WATER PUMP | 5.2120 | 5.8320 | OUTDOOR |
| CIRCULATING WATER PUMP A | 5.2120 | 5.8320 | OUTDOOR |
| CIRCULATING WATER PUMP B | 5.2120 | 5.8320 | OUTDOOR |
| CONDENSATE PUMP A | 5.2130 | 5.8320 | INDOOR |
| CONDENSATE PUMP B | 5.2130 | 5.8320 | INDOOR |
| CONDENSATE PUMP C | 5.2130 | 5.8320 | INDOOR |
| DIESEL FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| ELECTRIC FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| JOCKEY FIRE PUMP AND ENCLOSURE FEED | 5.2150 | 5.8320 | INDOOR |
| WASTEWATER SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 1 HRSG BLOWDOWN SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 1 HRSG BLOWDOWN SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 2 HRSG BLOWDOWN SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 2 HRSG BLOWDOWN SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| CLARIFIED WATER TRANSFER PUMP A | 5.2180 | 5.8320 | INDOOR |
| CLARIFIED WATER TRANSFER PUMP B | 5.2180 | 5.8320 | INDOOR |
| CLEARWELL SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| CLEARWELL SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| CLEARWELL SUMP PUMP C | 5.2180 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL TRANSFER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL TRANSFER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP A | 5.2190 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| SERVICE WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| POWERHOUSE SANITARY LIFT STATION | 5.2191 | 5.8220 | OUTDOOR |
| WAREHOUSE/ADMIN SANITARY LIFT STATION | 5.2191 | 5.8220 | OUTDOOR |
| COOLING TOWER | 5.2210 | 5.8320 | OUTDOOR |
| COOLING TOWER FAN 1 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 10 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 11 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 12 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 2 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 3 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 4 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 5 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 6 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 7 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 8 | 5.2210 | 5.2210 | OUTDOOR |
| COOLING TOWER FAN 9 | 5.2210 | 5.2210 | OUTDOOR |
| CONDENSER | 5.2220 | 5.8320 | INDOOR |
| CONDENSER VACUUM PUMP A | 5.2220 | 5.8320 | INDOOR |
| CONDENSER VACUUM PUMP A RECIRC PUMP | 5.2220 | 5.8320 | INDOOR |
| CONDENSER VACUUM PUMP B | 5.2220 | 5.8320 | INDOOR |
| CONDENSER VACUUM PUMP B RECIRC PUMP | 5.2220 | 5.8320 | INDOOR |
| CLOSED COOLING WATER HEAT EXCHANGER A | 5.2280 | 5.8320 | INDOOR |
| CLOSED COOLING WATER HEAT EXCHANGER B | 5.2280 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANKS | 5.2490 | 5.8320 | INDOOR |
| AIR COMPRESSOR A | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR B | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR C | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER A | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER B | 5.2710 | 5.8320 | INDOOR |
| AQUEOUS AMMONIA STORAGE TANK | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA UNLOADING SKID | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP A | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP B | 5.2750 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS REGULATING/METERING SKID | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR SKID | 5.2762 | 5.8320 | OUTDOOR |
| DRAINS TANK | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| AUXILIARY BOILER | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER BLOWDOWN TANK | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER DEAERATOR | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FD FAN | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FEEDWATER PUMP A | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FEEDWATER PUMP B | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY STEAM ELECTRIC SUPERHEATER | 5.2910 | 5.8320 | INDOOR |
| WASH WATER DRAINS TANK | 5.2940 | 5.8320 | OUTDOOR |
| OIL WATER SEPARATOR | 5.2940 | 5.8220 | OUTDOOR |
| DRY AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| WET AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVERS | 5.2980 | 5.8320 | INDOOR |
| CLOSED COOLING WATER HEAD TANK | 5.2980 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER CHEMICAL POT FEEDER | 5.2980 | 5.8320 | INDOOR |
| STG ATM DRAINS TANK | 5.2980 | 5.8320 | INDOOR |
| COOLING TOWER CHEMICAL FEED ENCLOSURE | 5.3120 | 5.8320 | OUTDOOR |
| CIRCULATING WATER SAMPLE PANEL | 5.3120 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| COOLING TOWER ACID PUMP SKID | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER ACID PUMP A | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER ACID PUMP B | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER CORROSION INHIBITOR PUMP SKID | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER CORROSION INHIBITOR PUMP A | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER CORROSION INHIBITOR PUMP B | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SODIUM BISULFITE PUMP SKID | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SODIUM BISULFITE PUMP A | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SODIUM BISULFITE PUMP B | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SCALE INHIBITOR PUMP SKID | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SCALE INHIBITOR PUMP A | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SCALE INHIBITOR PUMP B | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SODIUM HYPOCHLORITE PUMP SKID | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SODIUM HYPOCHLORITE PUMP A | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER SODIUM HYPOCHLORITE PUMP B | 5.3120 | 5.8320 | INDOOR |
| COOLING TOWER ACID STORAGE TANK | 5.3120 | 5.8320 | OUTDOOR |
| COOLING TOWER SODIUM HYPOCHLORITE STORAGE TANK | 5.3120 | 5.8320 | OUTDOOR |
| AMMONIA CHEMICAL SKID | 5.3210 | 5.8320 | INDOOR |
| AMMONIA FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| AMMONIA FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED SKID | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEMICAL SKID | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEM FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEM FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE SHELTER HOUSE | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE TRANSFER PUMP A | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE TRANSFER PUMP B | 5.3210 | 5.8320 | INDOOR |
| HRSG 1 HP/IP PHOSPHATE SKID | 5.3210 | 5.8320 | INDOOR |
| HRSG 2 HP/IP PHOSPHATE SKID | 5.3210 | 5.8320 | INDOOR |
| AUTOMATIC BACKWASH STRAINER & OIL/GREASE CARTRIDGE FILTER SKID | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN A | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN B | 5.3210 | 5.8320 | INDOOR |
| ULTRAFILTRATION (UF) BACKWASH PUMP SKID | 5.3210 | 5.8320 | INDOOR |
| UF CHEMICAL ENHANCED BACKWASH (CEB) SODIUM HYDROXIDE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB CITRIC ACID FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF BACKWASH TANK | 5.3210 | 5.8320 | INDOOR |
| CALCITE FILTERS | 5.3210 | 5.8320 | INDOOR |
| MIXED BED VALVE MANIFOLD | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL A | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL B | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL C | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL D | 5.3220 | 5.8320 | INDOOR |
| REVERSE OSMOSIS (RO) TRAIN A | 5.3220 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|-----------------------------------|-----------------|------------------|------------------|
| 1ST PASS RO FILTER A | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO BOOSTER PUMP A | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO FILTER A | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO BOOSTER PUMP A | 5.3220 | 5.8320 | INDOOR |
| RO CARTRIDGE FILTER A | 5.3220 | 5.8320 | INDOOR |
| REVERSE OSMOSIS (RO) TRAIN B | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO FILTER B | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO BOOSTER PUMP B | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO FILTER B | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO BOOSTER PUMP B | 5.3220 | 5.8320 | INDOOR |
| RO CARTRIDGE FILTER B | 5.3220 | 5.8320 | INDOOR |
| CLEAN IN PLACE (CIP) SKID | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP CARTRIDGE FILTER | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP TANK | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP TANK HEATER | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP FORWARDING PUMP | 5.3220 | 5.8320 | INDOOR |
| RO RINSE PUMP SKID | 5.3220 | 5.8320 | INDOOR |
| RO SODIUM BISULFITE FEED SKID | 5.3220 | 5.8320 | INDOOR |
| RO ANTI-SCALANT FEED SKID | 5.3220 | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE FEED SKID | 5.3220 | 5.8320 | INDOOR |
| RO ACID FEED SKID | 5.3220 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS COOLER | 5.3310 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS PANEL | 5.3310 | 5.8320 | INDOOR |
| HIGH RATE CONTACT CLARIFIER A | 5.3410 | 5.8320 | INDOOR |
| HIGH RATE CONTACT CLARIFIER B | 5.3410 | 5.8320 | INDOOR |
| SLUDGE TANK/THICKENER A | 5.3410 | 5.8320 | OUTDOOR |
| SLUDGE TANK/THICKENER A MIXER | 5.3410 | 5.8320 | OUTDOOR |
| SLUDGE TANK/THICKENER B | 5.3410 | 5.8320 | OUTDOOR |
| SLUDGE TANK/THICKENER B MIXER | 5.3410 | 5.8320 | OUTDOOR |
| CLARIFIER A SLUDGE PUMP SKID | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER A SLUDGE PUMP A | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER A SLUDGE PUMP B | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER A SLUDGE PUMP C | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER B SLUDGE PUMP SKID | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER B SLUDGE PUMP A | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER B SLUDGE PUMP B | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER B SLUDGE PUMP C | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS CLOTH WASH TANK | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS CLOTH WASH PUMP SKID | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS CLOTH WASH PUMP A | 5.3410 | 5.8320 | INDOOR |

157787 - COOPER 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|--------------------|
| FILTER PRESS CLOTH WASH PUMP B | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS FEED PUMP SKID | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS FEED PUMP A | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS FEED PUMP B | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS FEED PUMP C | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS A | 5.3410 | 5.8320 | INDOOR |
| FILTER PRESS B | 5.3410 | 5.8320 | INDOOR |
| POLYMER TOTE | OWNER | 5.8320 | INDOOR |
| CLARIFIER POLYMER TOTE MIXER | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER POLYMER FEED SKID | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER POLYMER FEED PUMP A | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER POLYMER FEED PUMP B | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER POLYMER BLENDING SYSTEM | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER COAGULANT TOTE | OWNER | 5.8320 | INDOOR |
| CLARIFIER COAGULANT FEED SKID | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER COAGULANT FEED PUMP A | 5.3410 | 5.8320 | INDOOR |
| CLARIFIER COAGULANT FEED PUMP B | 5.3410 | 5.8320 | INDOOR |
| GTG BUILDING CRANE | 5.4210 | 5.8320 | INDOOR |
| STG BUILDING CRANE | 5.4210 | 5.8320 | INDOOR |
| GTG1 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| STG GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG1 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG2 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| STG GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG1 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG2 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STG ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STANDBY DIESEL GENERATOR | 5.5240 | 5.8410 | OUTDOOR |
| 4160V SWGR A | 5.5310 | 5.8410 | INDOOR |
| 4160V SWGR B | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 1 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 2 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 3 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 4 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 5 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 6 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ACC STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP MCC 1 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 2 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 3 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 4 | 5.5310 | 5.8410 | INDOOR |
| ESS 480V SWGR A | 5.5310 | 5.8410 | INDOOR |
| ESS STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR B | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR C | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR D | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| STG 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| STG STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| STG 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| STG STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| WT 480V SWGR A | 5.5310 | 5.8410 | INDOOR |

157787 - COOPER 2x1 CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| WT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| WT 480V SWGR B | 5.5310 | 5.8410 | INDOOR |
| WT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 MCC | 5.5310 | 5.8410 | INDOOR |
| HRSG1 MCC | 5.5310 | 5.8410 | INDOOR |
| HRSG2 MCC | 5.5310 | 5.8410 | INDOOR |
| STG MCC | 5.5310 | 5.8410 | INDOOR |
| UPS AND 125VDC SYSTEM | 5.5310 | 5.8410 | INDOOR |
| WATER TREATMENT MCC | 5.5310 | 5.8410 | INDOOR |
| PLANT COMMUNICATIONS EQUIPMENT (GAITRONICS) | 5.5670 | 5.8410 | INDOOR |
| DCS (BOP) | 5.6110 | 5.8410 | INDOOR |
| FUEL GAS CHROMATOGRAPH | 5.6211 | 5.8320 | OUTDOOR |
| POWER BLOCK BUILDING AIR HANDLING UNITS (AHU) | 5.8340 | 5.8340 | INDOOR |
| POWER BLOCK BUILDING FANS | 5.8340 | 5.8340 | OUTDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATERS (GUH) | 5.8340 | 5.8340 | INDOOR |
| POWER BLOCK BUILDING LOUVERS | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATERS (EUH) | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING FANS | 5.8340 | 5.8340 | OUTDOOR |
| WATER TREATMENT BUILDING LOUVERS | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING SELF-CONTAINED AIR-CONDITIONING UNITS (SAU) | 5.8340 | 5.8340 | OUTDOOR |
| COOLING TOWER CHEMICAL FEED ENCLOSURE ELECTRIC UNIT HEATERS (EUH) | 5.3120 | 5.3120 | INDOOR |
| COOLING TOWER CHEMICAL FEED ENCLOSURE FANS | 5.3120 | 5.3120 | OUTDOOR |
| COOLING TOWER CHEMICAL FEED ENCLOSURE LOUVERS | 5.3120 | 5.3120 | INDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNITS (VAV) | 5.8340 | 5.8340 | INDOOR |
| ADMINISTRATION BUILDING FAN | 5.8340 | 5.8340 | OUTDOOR |
| ADMINISTRATION BUILDING ROOF TOP UNITS (RTU) | 5.8340 | 5.8340 | OUTDOOR |
| MAINTENANCE SHOP FAN | 5.8340 | 5.8340 | OUTDOOR |
| MAINTENANCE SHOP GAS UNIT HEATER (GUH) | 5.8340 | 5.8340 | INDOOR |
| MAINTENANCE SHOP LOUVER | 5.8340 | 5.8340 | INDOOR |
| MAINTENANCE SHOP/WAREHOUSE MAKE-UP AIR UNIT (MAU) | 5.8340 | 5.8340 | OUTDOOR |
| WAREHOUSE FAN | 5.8340 | 5.8340 | OUTDOOR |
| WAREHOUSE GAS UNIT HEATER (GUH) | 5.8340 | 5.8340 | INDOOR |
| WAREHOUSE LOUVER | 5.8340 | 5.8340 | INDOOR |
| GT1 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT2 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| STG GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| DEMINERALIZED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK HEATERS | 5.8570 | 5.8570 | OUTDOOR |
| CLARIFIED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK A | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK B | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK HEATER | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK HEATER | 5.8570 | 5.8570 | OUTDOOR |

157787 - TYGARTS CREEK CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| AMMONIA TOTE | OWNER | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEMICAL TOTE | OWNER | 5.8320 | INDOOR |
| FUEL GAS DEWPOINT HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS REGULATING/METERING SKID | 5.2762 | 5.8320 | OUTDOOR |
| NITROGEN BOTTLE RACK | OWNER | 5.8320 | OUTDOOR |
| OFF-SITE SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| ON-SITE SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| OXYGEN SCAVENGER TOTE | OWNER | 5.8320 | INDOOR |
| RO ANTI-SCALANT TOTE | OWNER | 5.8320 | INDOOR |
| RO SODIUM BISULFITE TOTE | OWNER | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE TOTE | OWNER | 5.8320 | INDOOR |
| RO SULFURIC ACID TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB CITRIC ACID TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB SODIUM HYDROXIDE TOTE | OWNER | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| MIXED BED VALVE MANIFOLD | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL A | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL B | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL C | 5.3220 | 5.8320 | INDOOR |
| MIXED BED DEMINERALIZATION VESSEL D | 5.3220 | 5.8320 | INDOOR |
| UNIT 1 PHOSPHATE TOTE | OWNER | 5.8320 | INDOOR |
| UNIT 2 PHOSPHATE TOTE | OWNER | 5.8320 | INDOOR |
| UNIT 3 PHOSPHATE TOTE | OWNER | 5.8320 | INDOOR |
| PLANT COMMUNICATIONS EQUIPMENT (GAITRONICS) | 5.5670 | 5.8410 | INDOOR |
| DCS (BOP) | 5.6110 | 5.8410 | INDOOR |
| COMMON GT WATER WASH SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - UNIT 1 | 5.1120 | 5.8320 | INDOOR |
| GT1 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT1 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT1 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT1 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT1 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |

157787 - TYGARTS CREEK CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT1 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT1 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT1 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT1 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT1 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT1 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| HRSG1 | 5.1215 | 5.8320 | INDOOR |
| HRSG1 AIG BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG1 AIG BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG1 BLOWDOWN TANK | 5.1215 | 5.8320 | INDOOR |
| HRSG1 CONDENSATE RECIRCULATION PUMP | 5.1215 | 5.8320 | INDOOR |
| HRSG1 COOLING BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG1 COOLING BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG1 EXHAUST STACK | 5.1215 | 5.8320 | INDOOR |
| HRSG1 CEMS SHELTER ANALYZER CABINET | 5.1215 | 5.8320 | OUTDOOR |
| GTG1 CEMS ANALYZER CABINET | 5.1215 | 5.8410 | INDOOR |
| GAS TURBINE GENERATOR - UNIT 2 | 5.1120 | 5.8320 | INDOOR |
| GT2 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT2 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT2 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |

157787 - TYGARTS CREEK CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT2 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT2 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT2 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT2 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT2 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT2 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT2 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT2 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| HRSG2 | 5.1215 | 5.8320 | INDOOR |
| HRSG2 AIG BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG2 AIG BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG2 BLOWDOWN TANK | 5.1215 | 5.8320 | INDOOR |
| HRSG2 CONDENSATE RECIRCULATION PUMP | 5.1215 | 5.8320 | INDOOR |
| HRSG2 COOLING BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG2 COOLING BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG2 EXHAUST STACK | 5.1215 | 5.8320 | INDOOR |
| HRSG2 CEMS SHELTER ANALYZER CABINET | 5.1215 | 5.8320 | OUTDOOR |
| GTG2 CEMS ANALYZER CABINET | 5.1215 | 5.8410 | INDOOR |
| GAS TURBINE GENERATOR - UNIT 3 | 5.1120 | 5.8320 | INDOOR |
| GT3 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT3 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT3 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT3 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |

157787 - TYGARTS CREEK CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT3 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT3 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT3 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT3 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT3 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT3 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT3 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT3 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT3 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT3 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT3 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT3 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT3 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT3 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT3 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT3 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT3 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT3 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT3 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT3 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT3 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| HRSG3 | 5.1215 | 5.8320 | INDOOR |
| HRSG3 AIG BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG3 AIG BLOWER B | 5.1215 | 5.8320 | INDOOR |
| HRSG3 BLOWDOWN TANK | 5.1215 | 5.8320 | INDOOR |
| HRSG3 CONDENSATE RECIRCULATION PUMP | 5.1215 | 5.8320 | INDOOR |
| HRSG3 COOLING BLOWER A | 5.1215 | 5.8320 | INDOOR |
| HRSG3 COOLING BLOWER B | 5.1215 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| HRSG3 EXHAUST STACK | 5.1215 | 5.8320 | INDOOR |
| HRSG3 CEMS SHELTER ANALYZER CABINET | 5.1215 | 5.8320 | OUTDOOR |
| GTG3 CEMS ANALYZER CABINET | 5.1215 | 5.8410 | INDOOR |
| STEAM TURBINE GENERATOR (STG) | 5.1110 | 5.8320 | INDOOR |
| STG HOTBOX | 5.1110 | 5.8320 | INDOOR |
| STG HP/IP TURBINE | 5.1110 | 5.8320 | INDOOR |
| STG LP TURBINE | 5.1110 | 5.8320 | INDOOR |
| STG BEARING LIFT OIL FILTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL FILTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL PUMP 1 | 5.1110 | 5.1110 | INDOOR |
| STG BEARING LIFT OIL PUMP 2 | 5.1110 | 5.1110 | INDOOR |
| STG EMERGENCY LUBE OIL PUMP | 5.1110 | 5.1110 | INDOOR |
| STG LUBE OIL COOLER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL COOLER 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL FILTER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL FILTER 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL MODULE/TANK | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL PUMP 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL PUMP 2 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUST OIL SEPARATOR | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUSTER 1 | 5.1110 | 5.8320 | INDOOR |
| STG LUBE OIL VAPOR EXHAUSTER 2 | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT HEATER | 5.1110 | 5.8320 | INDOOR |
| STG OIL PURIFICATION UNIT PUMP | 5.1110 | 5.8320 | INDOOR |
| STG GLAND STEAM CONDENSER | 5.1110 | 5.8320 | INDOOR |
| STG GLAND STEAM EXHAUSTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG GLAND STEAM EXHAUSTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC OIL UNIT/TANK | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING CIRCULATION PUMP 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING CIRCULATION PUMP 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING FAN 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL COOLING FAN 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL FILTER 1 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL FILTER 2 | 5.1110 | 5.1110 | INDOOR |
| STG HYDRAULIC/CONTROL OIL HEATER | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL PUMP 1 | 5.1110 | 5.8320 | INDOOR |
| STG HYDRAULIC/CONTROL OIL PUMP 2 | 5.1110 | 5.8320 | INDOOR |
| STG TRANSFORMER SEE | 5.1110 | 5.8410 | INDOOR |
| STG TRANSFORMER SEE PACKAGE | 5.1110 | 5.8410 | INDOOR |
| STG VT SURGE CUBICLE | 5.1110 | 5.8410 | INDOOR |
| BOILER FEEDWATER PUMP 1A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 1B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 1A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 1B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 2A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 2B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 2A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 2B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 3A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP 3B | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 3A | 5.2110 | 5.8320 | INDOOR |
| BOILER FEEDWATER PUMP LUBE OIL PUMP 3B | 5.2110 | 5.8320 | INDOOR |
| CONDENSATE PUMP A | 5.2130 | 5.8320 | INDOOR |
| CONDENSATE PUMP B | 5.2130 | 5.8320 | INDOOR |
| CONDENSATE PUMP C | 5.2130 | 5.8320 | INDOOR |
| DIESEL FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| ELECTRIC FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| JOCKEY FIRE PUMP AND ENCLOSURE FEED | 5.2150 | 5.8320 | INDOOR |
| FUEL OIL FORWARDING PUMP A | 5.2190 | 5.8320 | OUTDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| FUEL OIL FORWARDING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP D | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER D | 5.2762 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 1A | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 1B | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 2A | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 2B | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 3A | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 3B | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 4 | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP 5 | 5.2180 | 5.8320 | OUTDOOR |
| DEEP WELL | 5.8160 | 5.8160 | OUTDOOR |
| WELL PUMP A | 5.8160 | 5.8160 | OUTDOOR |
| WELL PUMP B | 5.8160 | 5.8160 | OUTDOOR |
| UNIT 1 HRSG BLOWDOWN SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 1 HRSG BLOWDOWN SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 2 HRSG BLOWDOWN SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 2 HRSG BLOWDOWN SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 3 HRSG BLOWDOWN SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| UNIT 3 HRSG BLOWDOWN SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| CLOSED COOLING WATER PUMP D | 5.2190 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP C | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 1 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 2 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 3 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 4 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 5 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 6 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 7 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 8 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 9 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 10 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 11 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 12 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 13 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 14 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 15 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 16 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 17 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 18 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 19 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 20 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 21 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 22 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 23 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 24 | 5.2215 | 5.8320 | OUTDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 25 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 26 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 27 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 28 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 29 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 30 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 31 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 32 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 33 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 34 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 35 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 36 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED CONDENSER (ACC) | 5.2230 | 5.8320 | OUTDOOR |
| ACC DUCT DRAIN POT PUMP A | 5.2230 | 5.8320 | OUTDOOR |
| ACC DUCT DRAIN POT PUMP B | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 COOLING FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 1 FAN DRIVE BRAKE 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 COOLING FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--------------------------------|-----------------|------------------|------------------|
| ACC STREET 2 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 2 FAN DRIVE BRAKE 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 COOLING FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 3 FAN DRIVE BRAKE 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 COOLING FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 4 FAN DRIVE BRAKE 8 | 5.2230 | 5.8320 | OUTDOOR |

157787 - TYGARTS CREEK CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---------------------------------------|-----------------|------------------|------------------|
| ACC STREET 4 FAN DRIVE BRAKE 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 COOLING FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 5 FAN DRIVE BRAKE 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 COOLING FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN 9 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 1 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 2 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 3 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 4 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 5 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 6 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 7 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 8 | 5.2230 | 5.8320 | OUTDOOR |
| ACC STREET 6 FAN DRIVE BRAKE 9 | 5.2230 | 5.8320 | OUTDOOR |
| CONDENSATE STORAGE TANK | 5.2230 | 5.8320 | INDOOR |
| DEAERATOR EJECTOR | 5.2230 | 5.8320 | INDOOR |
| ACC CLEANING WATER PUMP SKID | 5.2230 | 5.8320 | OUTDOOR |
| LIQUID RING VACUUM PUMP (LRVP) A | 5.2230 | 5.8320 | INDOOR |
| LRVP PLATE AND FRAME HEAT EXCHANGER A | 5.2230 | 5.8320 | INDOOR |
| LRVP RECIRCULATION PUMP A | 5.2230 | 5.8320 | INDOOR |

157787 - TYGARTS CREEK CCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| LRVP SEPARATOR TANK A | 5.2230 | 5.8320 | INDOOR |
| LIQUID RING VACUUM PUMP (LRVP) B | 5.2230 | 5.8320 | INDOOR |
| LRVP PLATE AND FRAME HEAT EXCHANGER B | 5.2230 | 5.8320 | INDOOR |
| LRVP RECIRCULATION PUMP B | 5.2230 | 5.8320 | INDOOR |
| LRVP SEPARATOR TANK B | 5.2230 | 5.8320 | INDOOR |
| POTABLE WATER WATER HEATER TANKS | 5.2490 | 5.8320 | INDOOR |
| AIR COMPRESSOR A | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR B | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR C | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER A | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER B | 5.2710 | 5.8320 | INDOOR |
| DRY AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| WET AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVERS | 5.2980 | 5.8320 | INDOOR |
| AQUEOUS AMMONIA STORAGE TANK | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA UNLOADING SKID | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP A | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP B | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP C | 5.2750 | 5.8320 | OUTDOOR |
| AQUEOUS AMMONIA FORWARDING PUMP D | 5.2750 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR SKID | 5.2762 | 5.8320 | OUTDOOR |
| DRAINS TANK | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| FUEL GAS CHROMATOGRAPH | 5.6211 | 5.8320 | OUTDOOR |
| AUXILIARY BOILER | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER BLOWDOWN TANK | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER DEAERATOR | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FD FAN | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FEEDWATER PUMP A | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY BOILER FEEDWATER PUMP B | 5.2910 | 5.8320 | INDOOR |
| AUXILIARY STEAM ELECTRIC SUPERHEATER | 5.2910 | 5.8320 | INDOOR |
| WASH WATER DRAINS TANK 1 | 5.2940 | 5.8320 | OUTDOOR |
| WASH WATER DRAINS TANK 2 | 5.2940 | 5.8320 | OUTDOOR |
| WASH WATER DRAINS TANK 3 | 5.2940 | 5.8320 | OUTDOOR |
| OIL WATER SEPARATOR | 5.2940 | 5.8220 | OUTDOOR |
| POWERHOUSE SANITARY LIFT STATION | 5.2191 | 5.8220 | OUTDOOR |
| WAREHOUSE/ADMIN SANITARY LIFT STATION | 5.2191 | 5.8220 | OUTDOOR |
| SANITARY TREATMENT FACILITY | 5.3430 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK HEATERS | 5.8570 | 5.8570 | OUTDOOR |
| RAW WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK A | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK B | 5.8570 | 5.8570 | OUTDOOR |
| CLOSED COOLING WATER HEAD TANK | 5.2980 | 5.8320 | OUTDOOR |
| STG FLASH TANK | 5.2980 | 5.8320 | INDOOR |
| STG ATM DRAINS TANK | 5.2980 | 5.8320 | INDOOR |
| AMMONIA CHEMICAL SKID | 5.3210 | 5.8320 | INDOOR |
| AMMONIA FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| AMMONIA FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| AMMONIA FEED PUMP C | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED SKID | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| OXYGEN SCAVENGER FEED PUMP C | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEMICAL SKID | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEM FEED PUMP A | 5.3210 | 5.8320 | INDOOR |
| AUXILIARY BOILER CHEM FEED PUMP B | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE SHELTER HOUSE | 5.3210 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| SODIUM HYPOCHLORITE TRANSFER PUMP A | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE TRANSFER PUMP B | 5.3210 | 5.8320 | INDOOR |
| HRSG 1 HP/IP PHOSPHATE SKID | 5.3210 | 5.8320 | INDOOR |
| HRSG 2 HP/IP PHOSPHATE SKID | 5.3210 | 5.8320 | INDOOR |
| HRSG 3 HP/IP PHOSPHATE SKID | 5.3210 | 5.8320 | INDOOR |
| REVERSE OSMOSIS (RO) TRAIN A | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO FILTER A | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO BOOSTER PUMP A | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO FILTER A | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO BOOSTER PUMP A | 5.3220 | 5.8320 | INDOOR |
| RO CARTRIDGE FILTER A | 5.3220 | 5.8320 | INDOOR |
| REVERSE OSMOSIS (RO) TRAIN B | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO FILTER B | 5.3220 | 5.8320 | INDOOR |
| 1ST PASS RO BOOSTER PUMP B | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO FILTER B | 5.3220 | 5.8320 | INDOOR |
| 2ND PASS RO BOOSTER PUMP B | 5.3220 | 5.8320 | INDOOR |
| RO CARTRIDGE FILTER B | 5.3220 | 5.8320 | INDOOR |
| CLEAN IN PLACE (CIP) SKID | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP CARTRIDGE FILTER | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP TANK | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP TANK HEATER | 5.3220 | 5.8320 | INDOOR |
| UF/RO CIP FORWARDING PUMP | 5.3220 | 5.8320 | INDOOR |
| RO RINSE PUMP SKID | 5.3220 | 5.8320 | INDOOR |
| RO SODIUM BISULFITE FEED SKID | 5.3220 | 5.8320 | INDOOR |
| RO ANTI-SCALANT FEED SKID | 5.3220 | 5.8320 | INDOOR |
| RO SODIUM HYDROXIDE FEED SKID | 5.3220 | 5.8320 | INDOOR |
| RO ACID FEED SKID | 5.3220 | 5.8320 | INDOOR |
| AUTOMATIC BACKWASH STRAINER & OIL/GREASE CARTRIDGE FILTER SKID | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN A | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN B | 5.3210 | 5.8320 | INDOOR |
| ULTRAFILTRATION (UF) BACKWASH PUMP SKID | 5.3210 | 5.8320 | INDOOR |
| UF CHEMICAL ENHANCED BACKWASH (CEB) SODIUM HYDROXIDE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE FEED SKID | 5.3210 | 5.8320 | INDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|--------------------|
| UF CEB CITRIC ACID FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF BACKWASH TANK | 5.3210 | 5.8320 | INDOOR |
| CALCITE FILTERS | 5.3210 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS COOLER | 5.3310 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS PANEL | 5.3310 | 5.8320 | INDOOR |
| GTG BUILDING CRANE | 5.4210 | 5.8320 | INDOOR |
| STG BUILDING CRANE | 5.4210 | 5.8320 | INDOOR |
| POWER BLOCK BUILDING AIR HANDLING UNITS (AHU) | 5.8340 | 5.8340 | INDOOR |
| POWER BLOCK BUILDING FANS | 5.8340 | 5.8340 | OUTDOOR |
| POWER BLOCK BUILDING GAS UNIT HEATERS (GUH) | 5.8340 | 5.8340 | INDOOR |
| POWER BLOCK BUILDING LOUVERS | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATERS (EUH) | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING FANS | 5.8340 | 5.8340 | OUTDOOR |
| WATER TREATMENT BUILDING LOUVERS | 5.8340 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING SELF-CONTAINED AIR-CONDITIONING UNITS (SAU) | 5.8340 | 5.8340 | OUTDOOR |
| ADMINISTRATION BUILDING AIR TERMINAL UNITS (VAV) | 5.8340 | 5.8340 | INDOOR |
| ADMINISTRATION BUILDING FAN | 5.8340 | 5.8340 | OUTDOOR |
| ADMINISTRATION BUILDING ROOF TOP UNITS (RTU) | 5.8340 | 5.8340 | OUTDOOR |
| MAINTENANCE SHOP FAN | 5.8340 | 5.8340 | OUTDOOR |
| MAINTENANCE SHOP GAS UNIT HEATER (GUH) | 5.8340 | 5.8340 | INDOOR |
| MAINTENANCE SHOP LOUVER | 5.8340 | 5.8340 | INDOOR |
| MAINTENANCE SHOP/WAREHOUSE MAKE-UP AIR UNIT (MAU) | 5.8340 | 5.8340 | OUTDOOR |
| WAREHOUSE FAN | 5.8340 | 5.8340 | OUTDOOR |
| WAREHOUSE GAS UNIT HEATER (GUH) | 5.8340 | 5.8340 | INDOOR |
| WAREHOUSE LOUVER | 5.8340 | 5.8340 | INDOOR |
| GTG1 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG2 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG3 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG3 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| STG GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG3 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| STG GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG1 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG2 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG3 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STG ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STANDBY DIESEL GENERATOR | 5.5240 | 5.8410 | OUTDOOR |
| 4160V SWGR A | 5.5310 | 5.8410 | INDOOR |
| 4160V SWGR B | 5.5310 | 5.8410 | INDOOR |
| 4160V SWGR C | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 1 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 2 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 3 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 4 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 5 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 6 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 7 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 8 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC MCC 9 (ACC PCM) | 5.5310 | 5.8410 | INDOOR |
| ACC STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ACC STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |

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| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---------------------------------------|-----------------|------------------|------------------|
| ACC STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP MCC 1 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 2 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 3 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 4 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 5 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 6 | 5.5310 | 5.8410 | INDOOR |
| ESS 480V SWGR A | 5.5310 | 5.8410 | INDOOR |
| ESS STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR B | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR C | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR D | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP 480V SWGR E | 5.5310 | 5.8410 | INDOOR |
| BOP STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| STG 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| STG STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| STG 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| STG STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| WT 480V SWGR A | 5.5310 | 5.8410 | INDOOR |
| WT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| WT 480V SWGR B | 5.5310 | 5.8410 | INDOOR |
| WT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG3 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG3 MCC | 5.5310 | 5.8410 | INDOOR |
| HRSG1 MCC | 5.5310 | 5.8410 | INDOOR |
| HRSG2 MCC | 5.5310 | 5.8410 | INDOOR |
| HRSG3 MCC | 5.5310 | 5.8410 | INDOOR |
| STG MCC | 5.5310 | 5.8410 | INDOOR |
| UPS AND 125VDC SYSTEM | 5.5310 | 5.8410 | INDOOR |
| WATER TREATMENT MCC | 5.5310 | 5.8410 | INDOOR |
| GT1 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT2 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT3 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| STG GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| FUEL GAS DEWPOINT HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER D | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER E | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS REGULATING/METERING SKID A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS REGULATING/METERING SKID B | 5.2762 | 5.8320 | OUTDOOR |
| NITROGEN BOTTLE RACK | OWNER | 5.8320 | OUTDOOR |
| BULK CO2 STORAGE SKID | OWNER | 5.8320 | OUTDOOR |
| UF SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| UF SODIUM HYDROXIDE TOTE | OWNER | 5.8320 | INDOOR |
| UF CITRIC ACID TOTE | OWNER | 5.8320 | INDOOR |
| DCS | 5.6110 | 5.8410 | INDOOR |
| COMMON GT WATER WASH SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT1 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT1 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT1 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT1 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT1 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT1 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT1 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT1 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT1 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT1 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT2 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT2 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT2 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT2 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT2 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT2 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT2 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT2 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT2 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT3 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT3 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT3 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT3 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT3 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT3 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT3 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT3 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT3 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT3 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT3 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT3 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT3 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT3 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT3 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT3 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT3 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT3 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT3 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT3 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT3 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT3 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT3 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT3 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #4 | 5.1120 | 5.8320 | INDOOR |
| GT4 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT4 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT4 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT4 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT4 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT4 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT4 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT4 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT4 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT4 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT4 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT4 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT4 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT4 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT4 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT4 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT4 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT4 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT4 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT4 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT4 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT4 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT4 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT4 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT4 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT4 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT4 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT4 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT4 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT4 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT4 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT4 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT4 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT4 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT4 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #5 | 5.1120 | 5.8320 | INDOOR |
| GT5 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT5 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT5 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT5 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT5 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT5 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT5 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT5 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT5 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT5 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT5 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT5 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT5 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT5 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT5 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT5 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT5 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT5 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT5 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT5 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT5 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT5 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT5 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT5 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT5 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT5 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT5 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT5 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT5 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT5 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT5 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT5 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT5 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT5 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT5 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| DIESEL FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| ELECTRIC FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| JOCKEY FIRE PUMP AND ENCLOSURE FEED | 5.2150 | 5.8320 | INDOOR |
| FUEL OIL FORWARDING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP D | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP E | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP F | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL TRANSFER PUMP | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP C | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP D | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP E | 5.2180 | 5.8320 | OUTDOOR |
| CLARIFIED WATER TRANSFER PUMP A | 5.2180 | 5.8320 | INDOOR |
| CLARIFIED WATER TRANSFER PUMP B | 5.2180 | 5.8320 | INDOOR |
| GTG1 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG1 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| GTG2 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG2 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| GTG3 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG3 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| GTG4 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG4 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| GTG5 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG5 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP C | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP D | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP E | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP F | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #1 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 1 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 2 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 3 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 4 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 5 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 6 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 7 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 8 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 9 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 10 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 11 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 12 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #2 | 5.2215 | 5.8320 | OUTDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 13 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 14 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 15 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 16 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 17 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 18 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 19 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 20 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 21 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 22 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 23 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 24 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #3 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 25 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 26 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 27 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 28 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 29 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 30 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 31 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 32 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 33 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 34 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 35 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 36 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #4 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 37 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 38 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 39 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 40 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 41 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 42 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 43 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 44 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 45 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 46 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 47 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 48 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #5 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 49 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 50 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 51 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 52 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 53 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 54 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 55 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 56 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 57 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 58 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 59 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 60 | 5.2215 | 5.8320 | OUTDOOR |
| POTABLE WATER WATER HEATER TANK | 5.2490 | 5.8320 | INDOOR |
| AIR COMPRESSOR A | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR B | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER A | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER B | 5.2710 | 5.8320 | INDOOR |
| DRY AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| WET AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVER #1 | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVER #2 | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVER #3 | 5.2980 | 5.8320 | INDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| PULSE AIR RECEIVER #4 | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVER #5 | 5.2980 | 5.8320 | INDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR SKID | 5.2762 | 5.8320 | OUTDOOR |
| DRAINS TANK | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR | 5.2762 | 5.8320 | OUTDOOR |
| GTG1 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG2 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG3 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG4 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG5 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG1 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| GTG2 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| GTG3 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| GTG4 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| GTG5 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| OIL WATER SEPAERATOR #1 | 5.2940 | 5.8220 | OUTDOOR |
| OIL WATER SEPAERATOR #2 | 5.2940 | 5.8220 | OUTDOOR |
| SANITARY LIFT STATION #1 | 5.2191 | 5.8220 | OUTDOOR |
| SANITARY LIFT STATION #2 | 5.2191 | 5.8220 | OUTDOOR |
| SANITARY TREAMENT FACILITY | 5.3430 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK HEATERS | 5.8570 | 5.8570 | OUTDOOR |
| CLARIFIED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK 1 | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK 2 | 5.8570 | 5.8570 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 1 | 5.2980 | 5.8320 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 2 | 5.2980 | 5.8320 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 3 | 5.2980 | 5.8320 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 4 | 5.2980 | 5.8320 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 5 | 5.2980 | 5.8320 | OUTDOOR |
| AUTOMATIC BACKWASH STRAINER & OIL/GREASE CARTRIDGE FILTER SKID | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN A | 5.3210 | 5.8320 | INDOOR |
| UF FILTER TRAIN B | 5.3210 | 5.8320 | INDOOR |
| ULTRAFILTRATION (UF) BACKWASH PUMP SKID | 5.3210 | 5.8320 | INDOOR |
| UF CHEMICAL ENHANCED BACKWASH (CEB) SODIUM HYDROXIDE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB SODIUM HYPOCHLORITE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF CEB CITRIC ACID FEED SKID | 5.3210 | 5.8320 | INDOOR |
| UF BACKWASH TANK | 5.3210 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS COOLER | 5.3310 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS PANEL | 5.3310 | 5.8320 | INDOOR |
| GAS TURBINE ENCLOSURE AIR HANDLING UNITS (AHU) | 5.4410 | 5.8340 | INDOOR |
| GAS TURBINE ENCLOSURE FANS | 5.4410 | 5.8340 | OUTDOOR |
| GAS TURBINE ENCLOSURE GAS UNIT HEATERS (GUH) | 5.4410 | 5.8340 | INDOOR |
| GAS TURBINE ENCLOSURE LOUVERS | 5.4410 | 5.8340 | INDOOR |
| ADMIN/WAREHOUSE BUILDING ELECTRIC UNIT HEATERS (EUH) | 5.4410 | 5.8340 | INDOOR |
| ADMIN/WAREHOUSE BUILDING FANS | 5.4410 | 5.8340 | OUTDOOR |
| ADMIN/WAREHOUSE BUILDING LOUVERS | 5.4410 | 5.8340 | INDOOR |
| ADMIN/WAREHOUSE BUILDING SELF-CONTAINED AIR-CONDITIONING UNITS (SAU) | 5.4410 | 5.8340 | OUTDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATERS (EUH) | 5.4410 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING FANS | 5.4410 | 5.8340 | OUTDOOR |
| WATER TREATMENT BUILDING LOUVERS | 5.4410 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING SELF-CONTAINED AIR-CONDITIONING UNITS (SAU) | 5.4410 | 5.8340 | OUTDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|--------------------|
| GTG1 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG2 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG3 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG3 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG4 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG4 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG5 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG5 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG3 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG4 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG5 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG1 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG2 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG3 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG4 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG5 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STANDBY DIESEL GENERATOR | 5.5240 | 5.8410 | OUTDOOR |
| 4160V SWGR 4 | 5.5310 | 5.8410 | INDOOR |
| 4160V SWGR 5 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 1 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 2 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 3 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 4 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 5 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 1 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 2 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 3 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 4 | 5.5310 | 5.8410 | INDOOR |
| BOP1 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| BOP1 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP2 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| BOP2 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ESSENTIAL 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG1 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GTG2 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG2 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GTG3 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG3 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG3 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG3 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GTG4 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG4 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG4 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG4 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GTG5 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG5 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |

157787 - SMITH (5) SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GTG5 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG5 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP UPS AND 125VDC SYSTEM | 5.5310 | 5.8410 | INDOOR |
| WATER TREATMENT MCC | 5.5310 | 5.8410 | INDOOR |
| WATER TREATMENT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GT1 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT2 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT3 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT4 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT5 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT1 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT2 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT3 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT4 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT5 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |

157787 - TYGARTS CREEK SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| FUEL GAS DEWPOINT HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS DEWPOINT HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS REGULATING/METERING SKID A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS REGULATING/METERING SKID B | 5.2762 | 5.8320 | OUTDOOR |
| NITROGEN BOTTLE RACK | OWNER | 5.8320 | OUTDOOR |
| BULK CO2 STORAGE SKID | OWNER | 5.8320 | OUTDOOR |
| SODIUM HYPOCHLORITE TOTE | OWNER | 5.8320 | INDOOR |
| DCS | 5.6110 | 5.8410 | INDOOR |
| COMMON GT WATER WASH SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT1 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT1 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT1 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT1 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT1 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT1 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT1 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT1 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT1 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT1 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT1 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT1 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT1 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT1 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT1 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |

157787 - TYGARTS CREEK SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT1 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT1 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT1 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT1 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT2 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT2 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT2 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT2 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT2 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT2 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT2 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT2 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT2 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT2 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT2 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT2 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT2 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT2 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT2 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT2 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |

157787 - TYGARTS CREEK SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT2 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT2 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT2 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT2 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GAS TURBINE GENERATOR - #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 AIR INLET FILTER | 5.1120 | 5.8320 | OUTDOOR |
| GT3 BATTERY CHARGER | 5.1120 | 5.8410 | INDOOR |
| GT3 BEARING LIFT OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT3 COLLECTOR BLOWER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 COLLECTOR BLOWER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FAN | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 CONTROL OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 ELECTRICAL PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT3 ELECTRICAL PACKAGE HVAC UNIT #1 | 5.1120 | 5.8410 | INDOOR |
| GT3 ELECTRICAL PACKAGE HVAC UNIT #2 | 5.1120 | 5.8410 | INDOOR |
| GT3 EMERGENCY DC LUBE OIL PUMP | 5.1120 | 5.8320 | INDOOR |
| GT3 ENCLOSURE | 5.1120 | 5.8320 | INDOOR |
| GT3 EVAPORATIVE COOLER | 5.1120 | 5.8320 | INDOOR |
| GT3 FUEL GAS PERFORMANCE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT3 FUEL OIL SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 GENERATOR | 5.1120 | 5.8320 | INDOOR |
| GT3 GENERATOR SPACE HEATER | 5.1120 | 5.8320 | INDOOR |
| GT3 HIGH SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT3 HYDRAULIC SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 KNOCKOUT DRUM | 5.1120 | 5.8320 | INDOOR |
| GT3 LOW SPEED TURNING GEAR | 5.1120 | 5.8320 | INDOOR |
| GT3 LP CO2 FIRE PROTECTION SKID | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL COOLER #1 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL COOLER #2 (PLATE & FRAME HX) | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL FILTER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL FILTER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL PUMP #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL PUMP #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL RESERVOIR HEATER #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL VAPOR EXTRACTOR #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 LUBE OIL VAPOR EXTRACTOR #2 | 5.1120 | 5.8320 | INDOOR |
| GT3 LV PANEL BOARD TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 MAIN FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT3 OIL SKID & COOLER | 5.1120 | 5.8320 | INDOOR |
| GT3 PILOT FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 PILOT FUEL GAS FILTER | 5.1120 | 5.8320 | INDOOR |
| GT3 PURGE/INSTRUMENT AIR COMPRESSOR | 5.1120 | 5.8320 | INDOOR |
| GT3 ROTOR AIR COOLER (KETTLE BOILER) | 5.1120 | 5.8320 | INDOOR |
| GT3 SEE TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 SEE/SFC PACKAGE | 5.1120 | 5.8410 | INDOOR |
| GT3 SFC TRANSFORMER | 5.1120 | 5.8410 | INDOOR |
| GT3 STAGE A FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 STAGE B FLOW DIVIDER | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #1 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #2 | 5.1120 | 5.8320 | INDOOR |

157787 - TYGARTS CREEK SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|---|-----------------|------------------|------------------|
| GT3 TURBINE VENT FAN #3 | 5.1120 | 5.8320 | INDOOR |
| GT3 TURBINE VENT FAN #4 | 5.1120 | 5.8320 | INDOOR |
| GT3 VT SURGE/SFC SWITCH CUBICLE | 5.1120 | 5.8410 | INDOOR |
| GT3 WATER INJECTION SKID | 5.1120 | 5.8320 | INDOOR |
| DIESEL FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| ELECTRIC FIRE PUMP | 5.2150 | 5.8320 | INDOOR |
| JOCKEY FIRE PUMP AND ENCLOSURE FEED | 5.2150 | 5.8320 | INDOOR |
| FUEL OIL FORWARDING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL FORWARDING PUMP D | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL UNLOADING PUMP C | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL TRANSFER PUMP | 5.2190 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER A | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER B | 5.2762 | 5.8320 | OUTDOOR |
| FUEL OIL HEATER C | 5.2762 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP A | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP B | 5.2180 | 5.8320 | OUTDOOR |
| WASTEWATER SUMP PUMP C | 5.2180 | 5.8320 | OUTDOOR |
| DEEP WELL | 5.8160 | 5.8160 | OUTDOOR |
| WELL PUMP A | 5.8160 | 5.8160 | OUTDOOR |
| WELL PUMP B | 5.8160 | 5.8160 | OUTDOOR |
| GTG1 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG1 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| GTG2 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG2 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| GTG3 CLOSED COOLING WATER PUMP A | 5.2190 | 5.8320 | OUTDOOR |
| GTG3 CLOSED COOLING WATER PUMP B | 5.2190 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP C | 5.2190 | 5.8320 | INDOOR |
| DEMINERALIZED WATER PUMP D | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP A | 5.2190 | 5.8320 | INDOOR |
| SERVICE WATER PUMP B | 5.2190 | 5.8320 | INDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #1 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 1 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 2 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 3 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 4 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 5 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 6 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 7 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 8 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 9 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 10 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 11 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 12 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #2 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 13 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 14 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 15 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 16 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 17 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 18 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 19 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 20 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 21 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 22 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 23 | 5.2215 | 5.8320 | OUTDOOR |

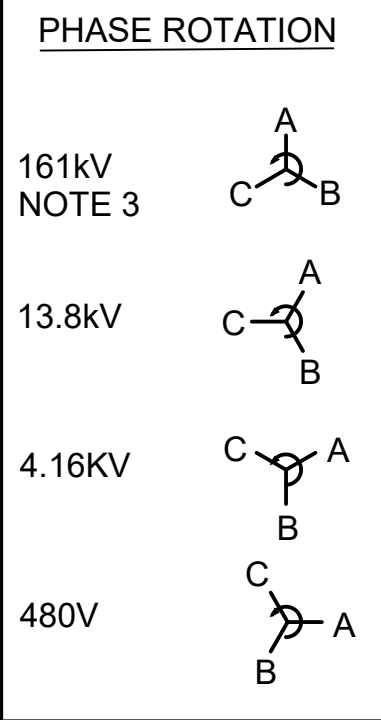
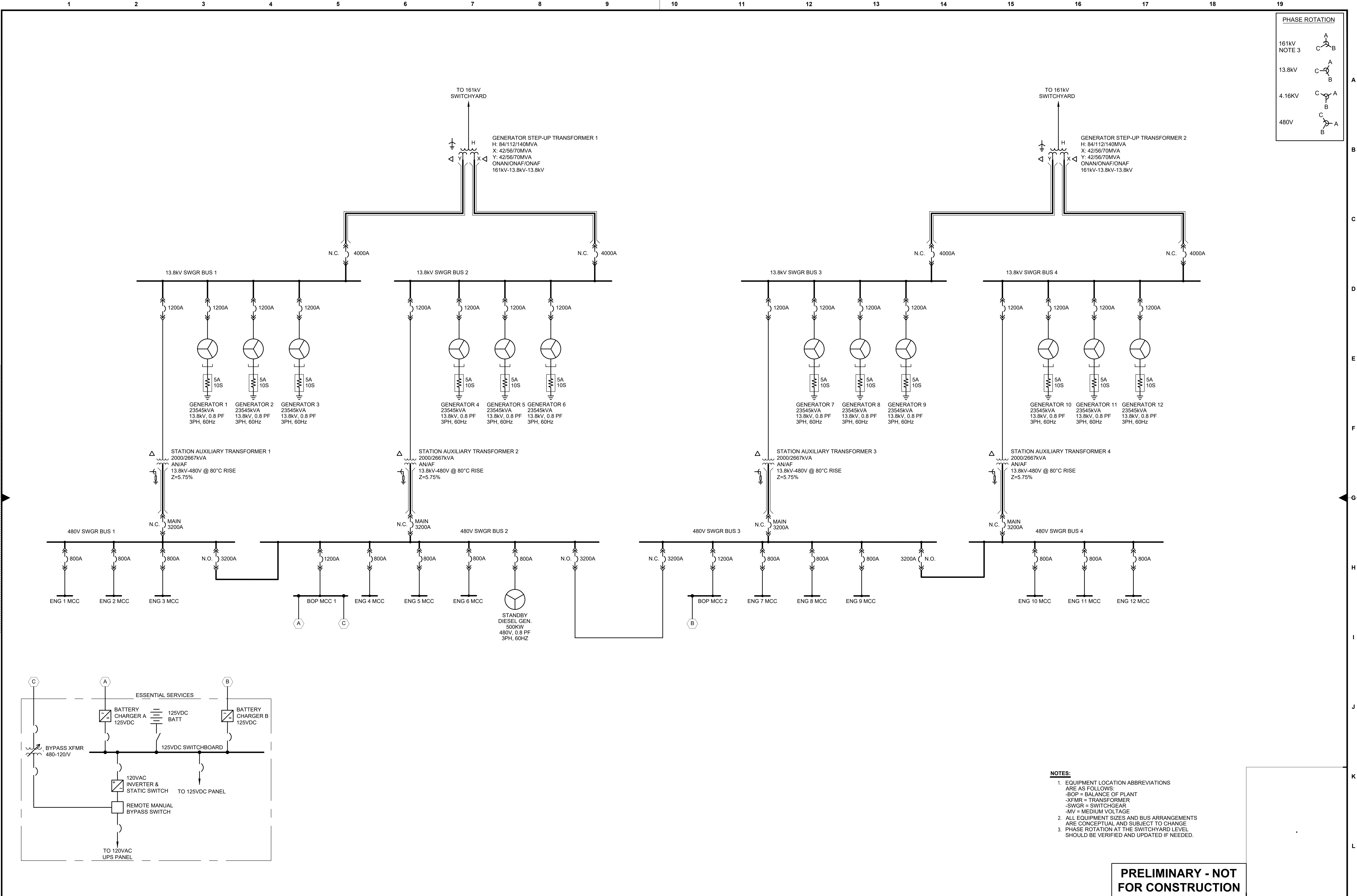
157787 - TYGARTS CREEK SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|------------------|
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 24 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) #3 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 25 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 26 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 27 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 28 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 29 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 30 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 31 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 32 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 33 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 34 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 35 | 5.2215 | 5.8320 | OUTDOOR |
| AIR-COOLED HEAT EXCHANGER (ACHE) FAN 36 | 5.2215 | 5.8320 | OUTDOOR |
| POTABLE WATER WATER HEATER TANK | 5.2490 | 5.8320 | INDOOR |
| AIR COMPRESSOR A | 5.2710 | 5.8320 | INDOOR |
| AIR COMPRESSOR B | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER A | 5.2710 | 5.8320 | INDOOR |
| AIR DRYER B | 5.2710 | 5.8320 | INDOOR |
| DRY AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| WET AIR RECEIVER | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVER #1 | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVER #2 | 5.2980 | 5.8320 | INDOOR |
| PULSE AIR RECEIVER #3 | 5.2980 | 5.8320 | INDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR SKID | 5.2762 | 5.8320 | OUTDOOR |
| DRAINS TANK | 5.2762 | 5.8320 | OUTDOOR |
| FUEL GAS COALESCING FILTER SEPARATOR | 5.2762 | 5.8320 | OUTDOOR |
| GTG1 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG2 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG3 FUEL GAS DRAINS TANK | 5.2762 | 5.8320 | INDOOR |
| GTG1 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| GTG2 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| GTG3 WASH WATER DRAINS TANK | 5.2940 | 5.8220 | OUTDOOR |
| OIL WATER SEPARATOR #1 | 5.2940 | 5.8220 | OUTDOOR |
| SANITARY LIFT STATION #1 | 5.2191 | 5.8220 | OUTDOOR |
| SANITARY LIFT STATION #2 | 5.2191 | 5.8220 | OUTDOOR |
| SANITARY TREATMENT FACILITY | 5.3430 | 5.8320 | OUTDOOR |
| DEMINERALIZED WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| SERVICE/FIRE WATER STORAGE TANK HEATERS | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK | 5.8570 | 5.8570 | OUTDOOR |
| FUEL OIL STORAGE TANK HEATERS | 5.8570 | 5.8570 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 1 | 5.2980 | 5.8320 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 2 | 5.2980 | 5.8320 | OUTDOOR |
| CLOSED COOLING EXPANSION TANK 3 | 5.2980 | 5.8320 | OUTDOOR |
| AUTOMATIC BACKWASH STRAINER & OIL/GREASE CARTRIDGE FILTER SKID | 5.3210 | 5.8320 | INDOOR |
| SODIUM HYPOCHLORITE FEED SKID | 5.3210 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS COOLER | 5.3310 | 5.8320 | INDOOR |
| SAMPLE ANALYSIS PANEL | 5.3310 | 5.8320 | INDOOR |
| GAS TURBINE ENCLOSURE AIR HANDLING UNITS (AHU) | 5.4410 | 5.8340 | INDOOR |
| GAS TURBINE ENCLOSURE FANS | 5.4410 | 5.8340 | OUTDOOR |
| GAS TURBINE ENCLOSURE GAS UNIT HEATERS (GUH) | 5.4410 | 5.8340 | INDOOR |
| GAS TURBINE ENCLOSURE LOUVERS | 5.4410 | 5.8340 | INDOOR |
| ADMIN/WAREHOUSE BUILDING ELECTRIC UNIT HEATERS (EUH) | 5.4410 | 5.8340 | INDOOR |
| ADMIN/WAREHOUSE BUILDING FANS | 5.4410 | 5.8340 | OUTDOOR |
| ADMIN/WAREHOUSE BUILDING LOUVERS | 5.4410 | 5.8340 | INDOOR |
| ADMIN/WAREHOUSE BUILDING SELF-CONTAINED AIR-CONDITIONING UNITS (SAU) | 5.4410 | 5.8340 | OUTDOOR |
| WATER TREATMENT BUILDING ELECTRIC UNIT HEATERS (EUH) | 5.4410 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING FANS | 5.4410 | 5.8340 | OUTDOOR |

157787 - TYGARTS CREEK SCGT EQUIPMENT LIST

| Equipment Name/Description | Supply Contract | Install Contract | Indoor / Outdoor |
|--|-----------------|------------------|--------------------|
| WATER TREATMENT BUILDING LOUVERS | 5.4410 | 5.8340 | INDOOR |
| WATER TREATMENT BUILDING SELF-CONTAINED AIR-CONDITIONING UNITS (SAU) | 5.4410 | 5.8340 | OUTDOOR |
| GTG1 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG2 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG3 AUXILIARY TRANSFORMER | 5.5120 | 5.8410 | OUTDOOR |
| GTG3 GENERATOR STEP-UP (GSU) TRANSFORMER | 5.5110 | 5.8410 | OUTDOOR |
| GTG1 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG2 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG3 GENERATOR BREAKER | 5.5210 | 5.8410 | OUTDOOR |
| GTG1 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG2 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| GTG3 ISOPHASE BUS DUCT | 5.5220 | 5.8410 | INDOOR/ OUTDOOR |
| STANDBY DIESEL GENERATOR | 5.5240 | 5.8410 | OUTDOOR |
| 4160V SWGR 1 | 5.5310 | 5.8410 | INDOOR |
| 4160V SWGR 2 | 5.5310 | 5.8410 | INDOOR |
| 4160V SWGR 3 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 1 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 2 | 5.5310 | 5.8410 | INDOOR |
| ACHE MCC 3 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 1 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 2 | 5.5310 | 5.8410 | INDOOR |
| BOP MCC 3 | 5.5310 | 5.8410 | INDOOR |
| BOP1 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| BOP1 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP2 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| BOP2 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| ESSENTIAL 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG1 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG1 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GTG2 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG2 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG2 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GTG3 480V SWGR | 5.5310 | 5.8410 | INDOOR |
| GTG3 ESSENTIAL MCC | 5.5310 | 5.8410 | INDOOR |
| GTG3 MCC | 5.5310 | 5.8410 | INDOOR |
| GTG3 STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| BOP UPS AND 125VDC SYSTEM | 5.5310 | 5.8410 | INDOOR |
| WATER TREATMENT MCC | 5.5310 | 5.8410 | INDOOR |
| WATER TREATMENT STATION SERVICE TRANSFORMER | 5.5310 | 5.8410 | OUTDOOR |
| GT1 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT2 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT3 CEMS SHELTER | 5.6310 | 5.8320 | OUTDOOR |
| GT1 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT2 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |
| GT3 GSU TRANSFORMER DELUGE VALVE SHED | 5.8360 | 5.8360 | OUTDOOR |

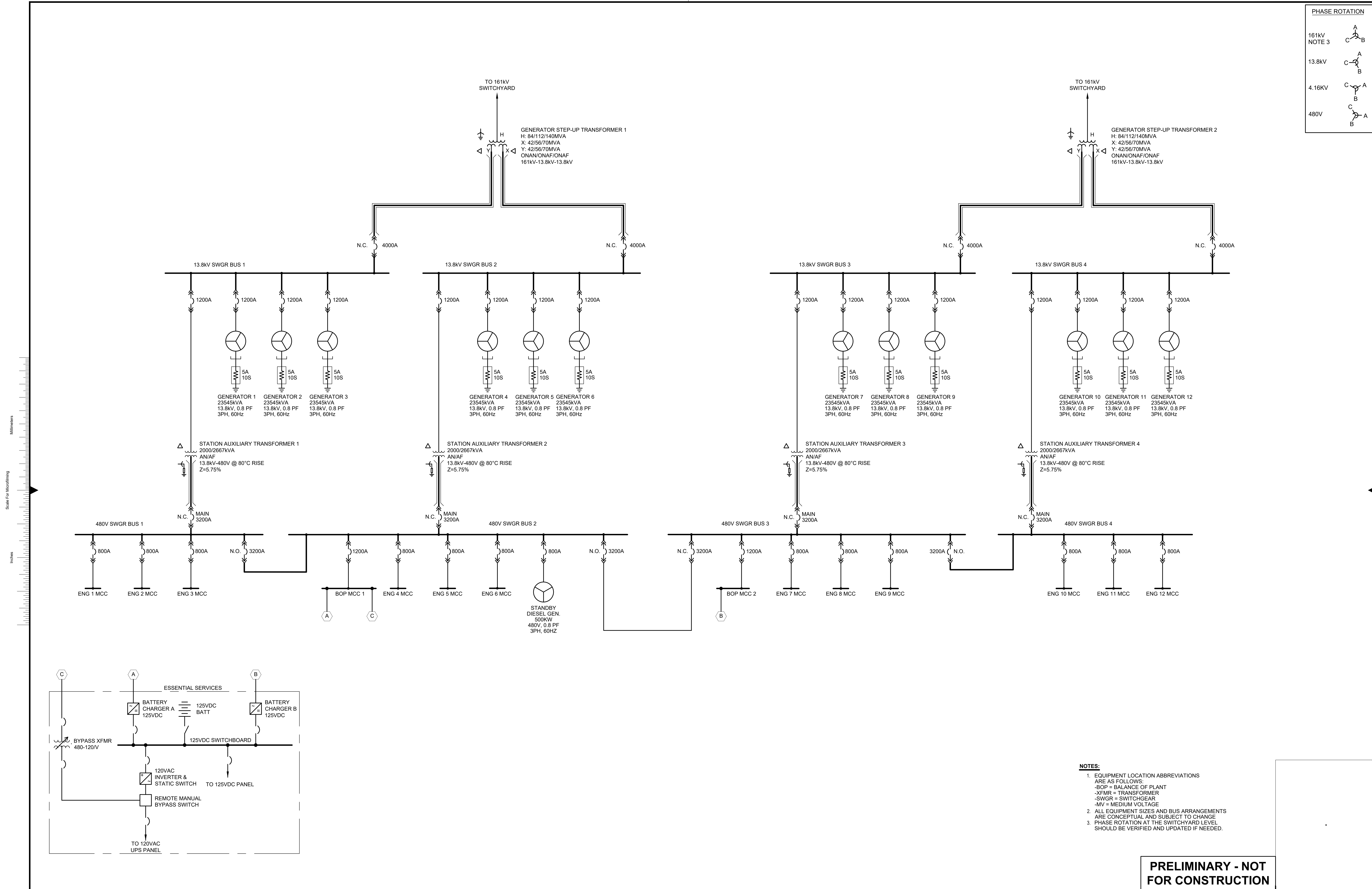
APPENDIX E – ONE-LINE DIAGRAMS



- NOTES:**
- EQUIPMENT LOCATION ABBREVIATIONS ARE AS FOLLOWS:
-BOP = BALANCE OF PLANT
-XFMR = TRANSFORMER
-SWGR = SWITCHGEAR
-MV = MEDIUM VOLTAGE
 - ALL EQUIPMENT SIZES AND BUS ARRANGEMENTS ARE CONCEPTUAL AND SUBJECT TO CHANGE
 - PHASE ROTATION AT THE SWITCHYARD LEVEL SHOULD BE VERIFIED AND UPDATED IF NEEDED.

**PRELIMINARY - NOT
FOR CONSTRUCTION**

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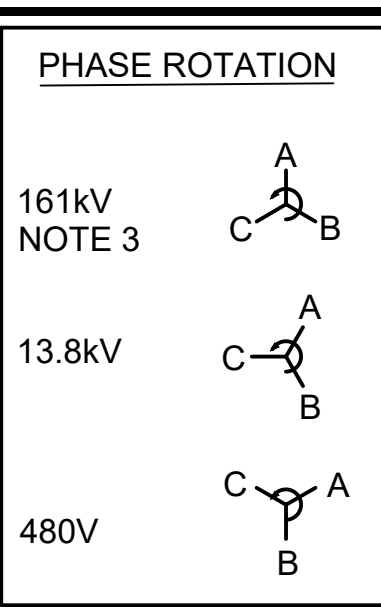
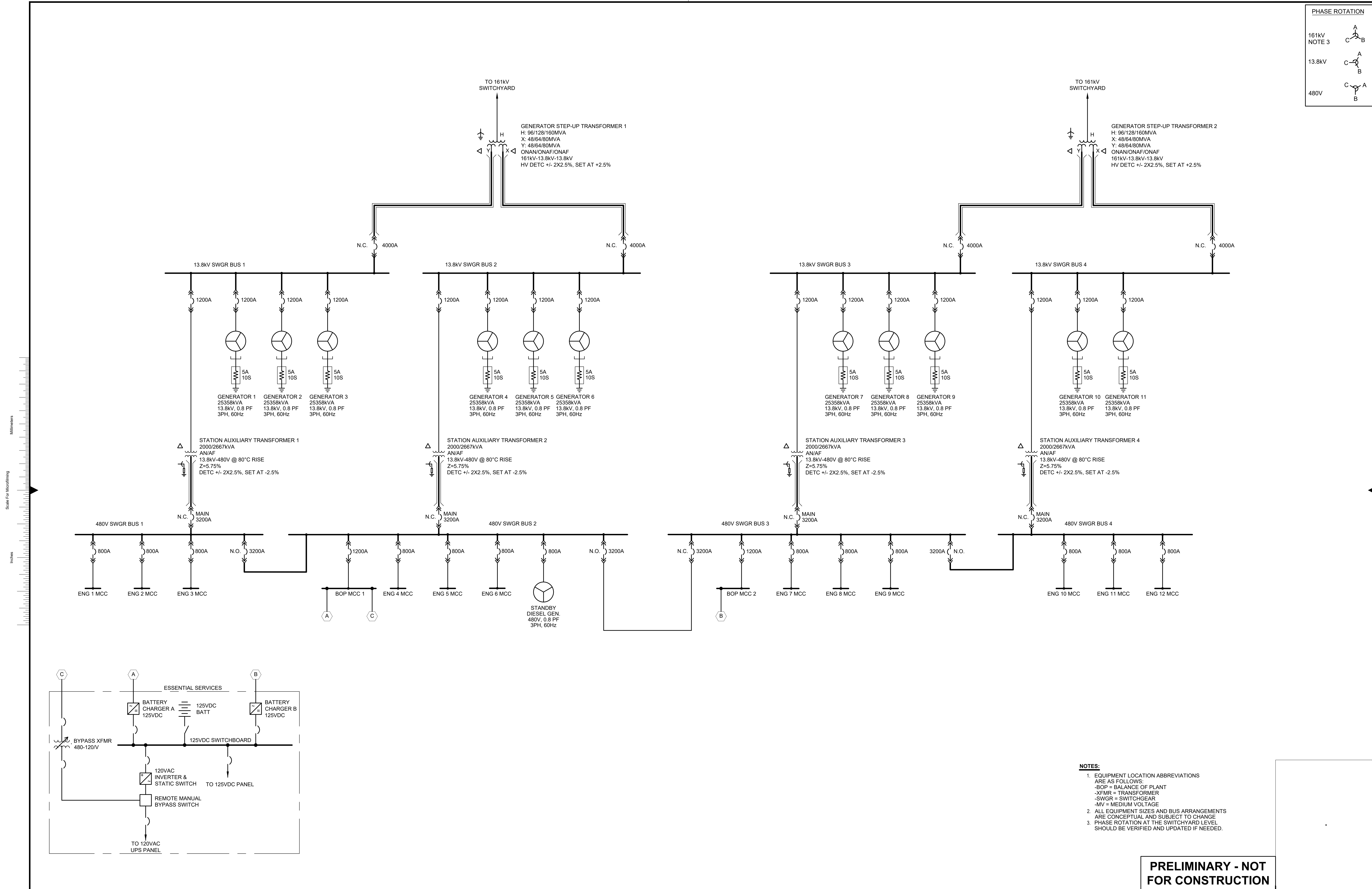
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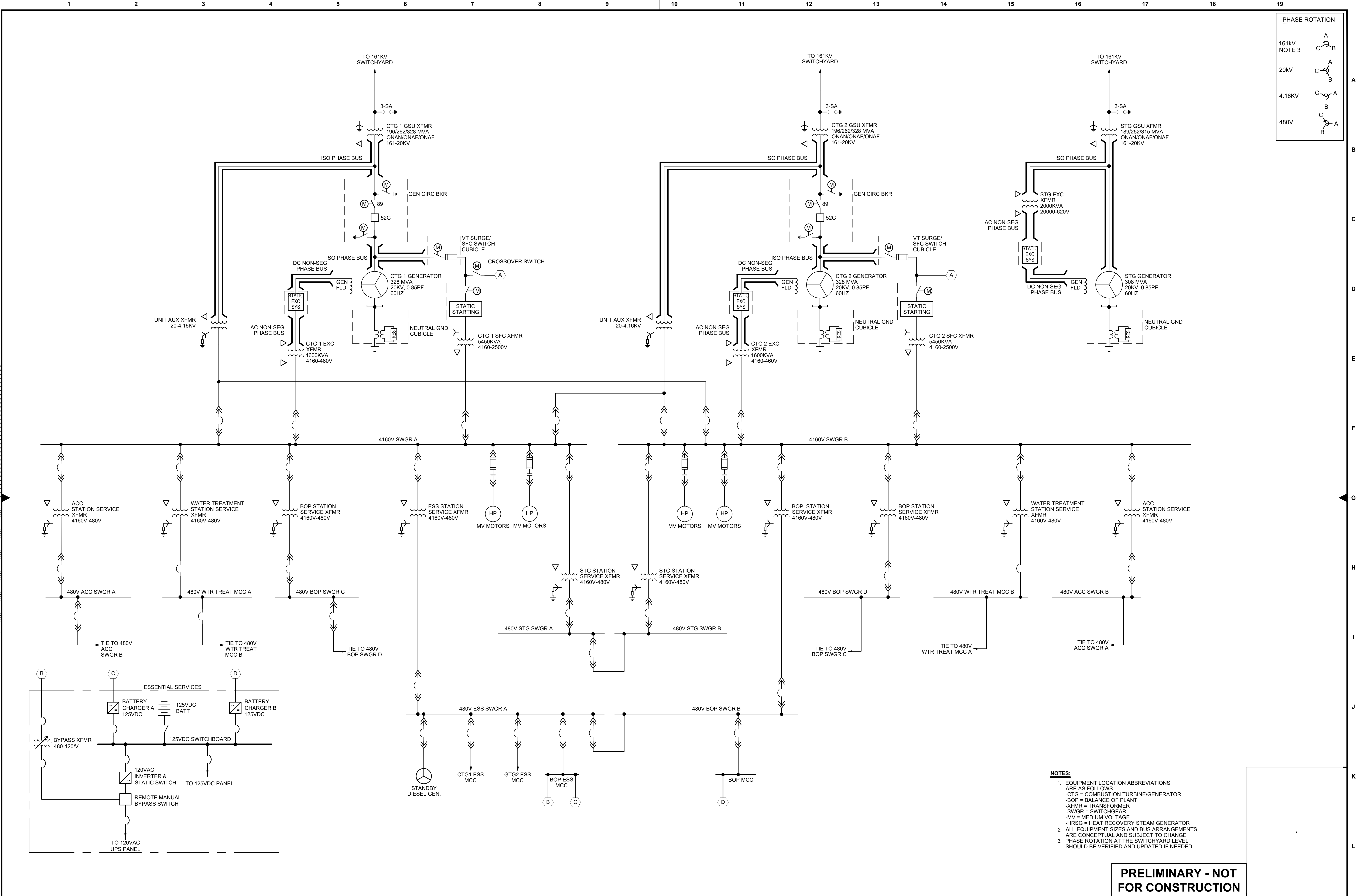
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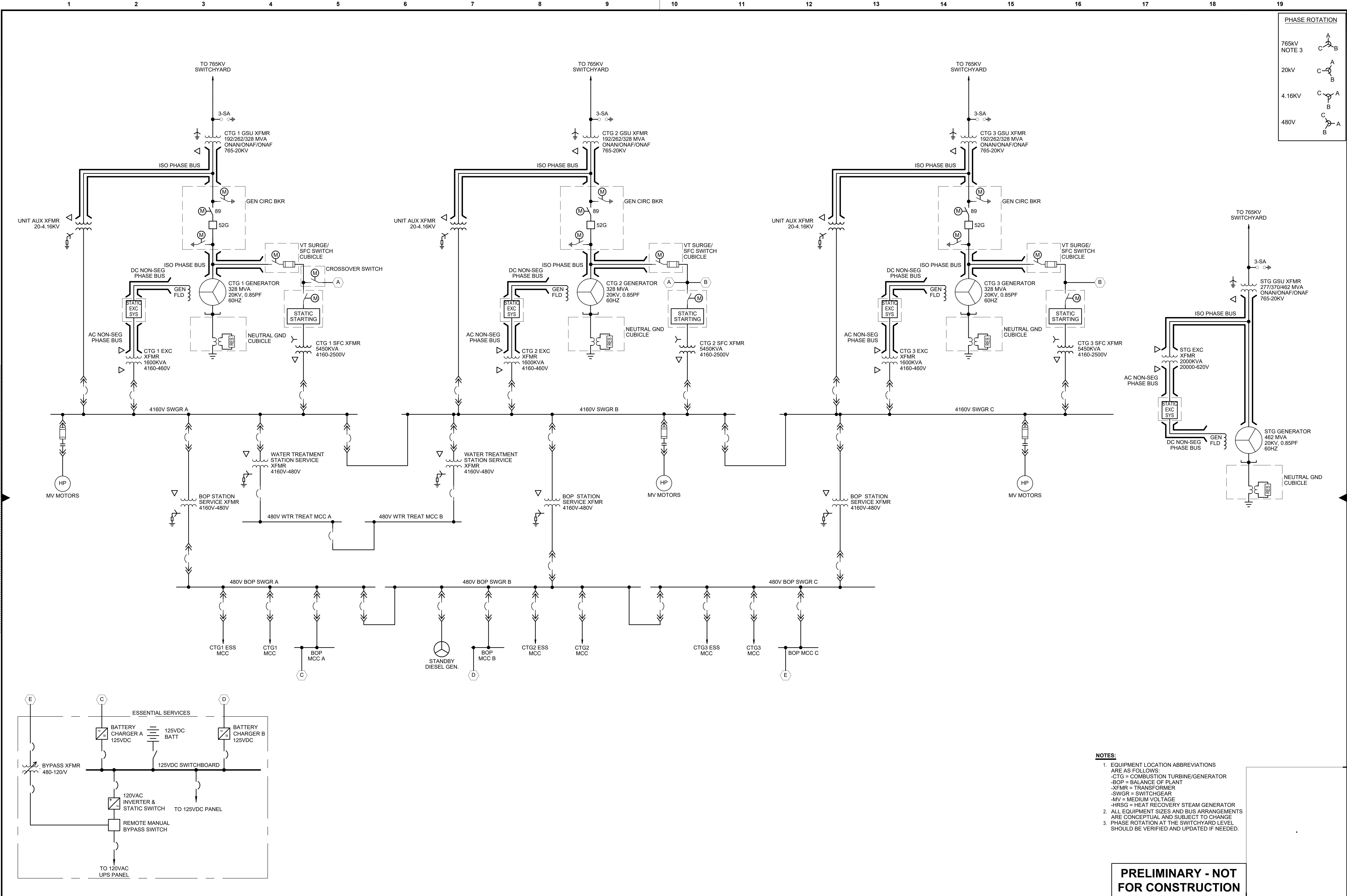
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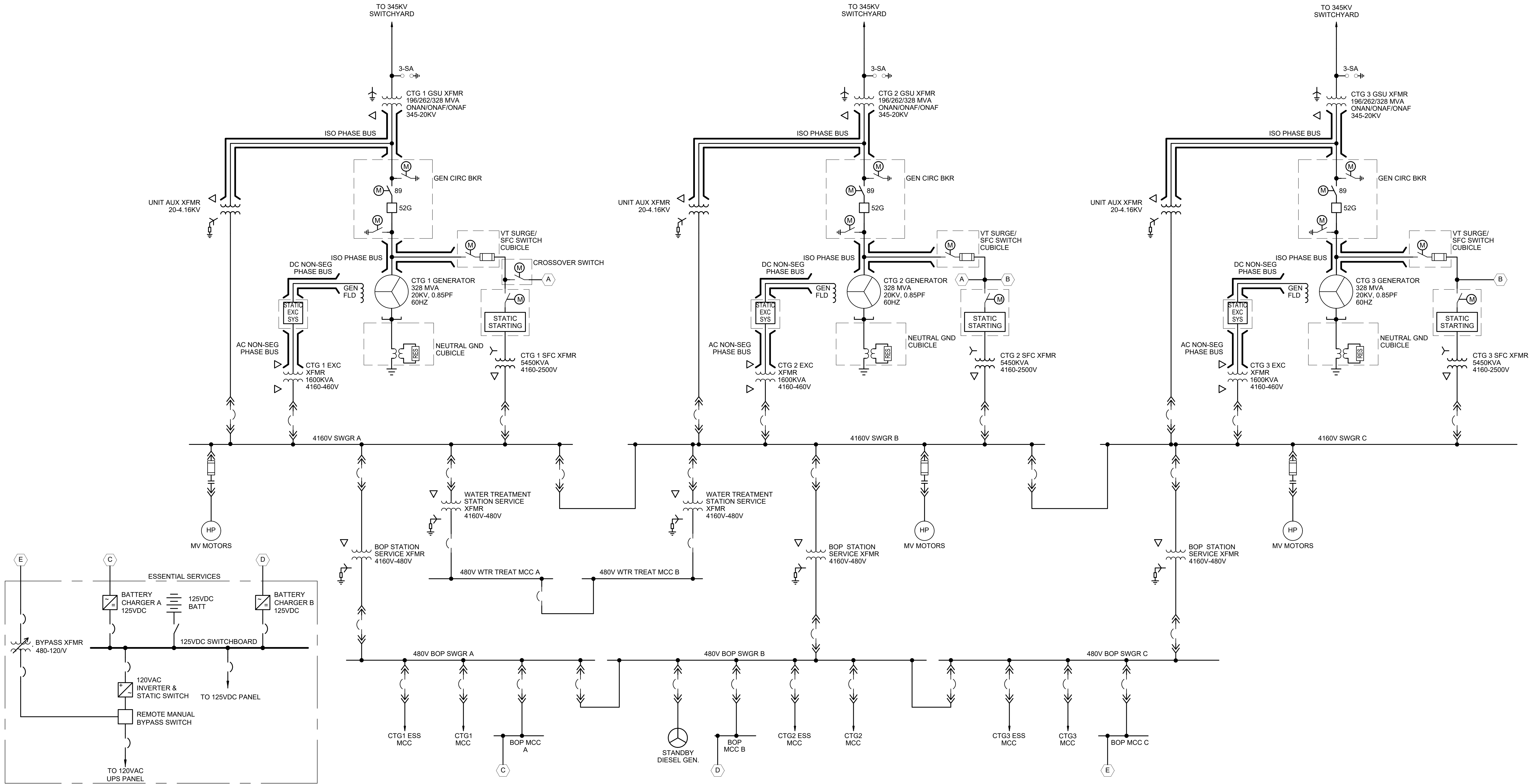
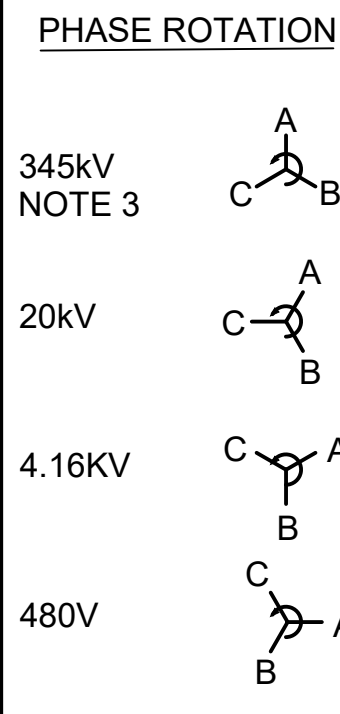
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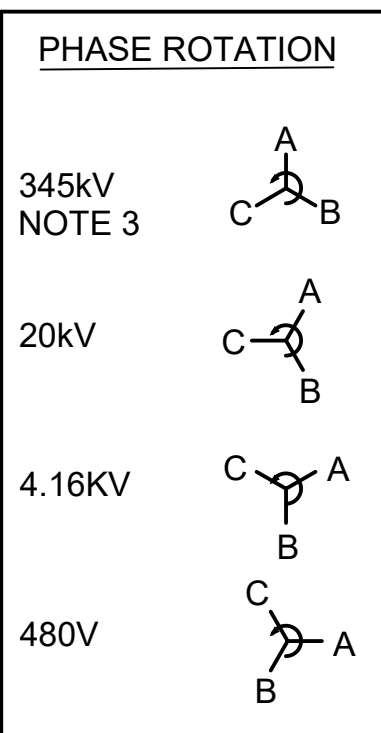
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- EQUIPMENT LOCATION ABBREVIATIONS ARE AS FOLLOWS:
 - CTG = COMBUSTION TURBINE/GENERATOR
 - BOP = BALANCE OF PLANT
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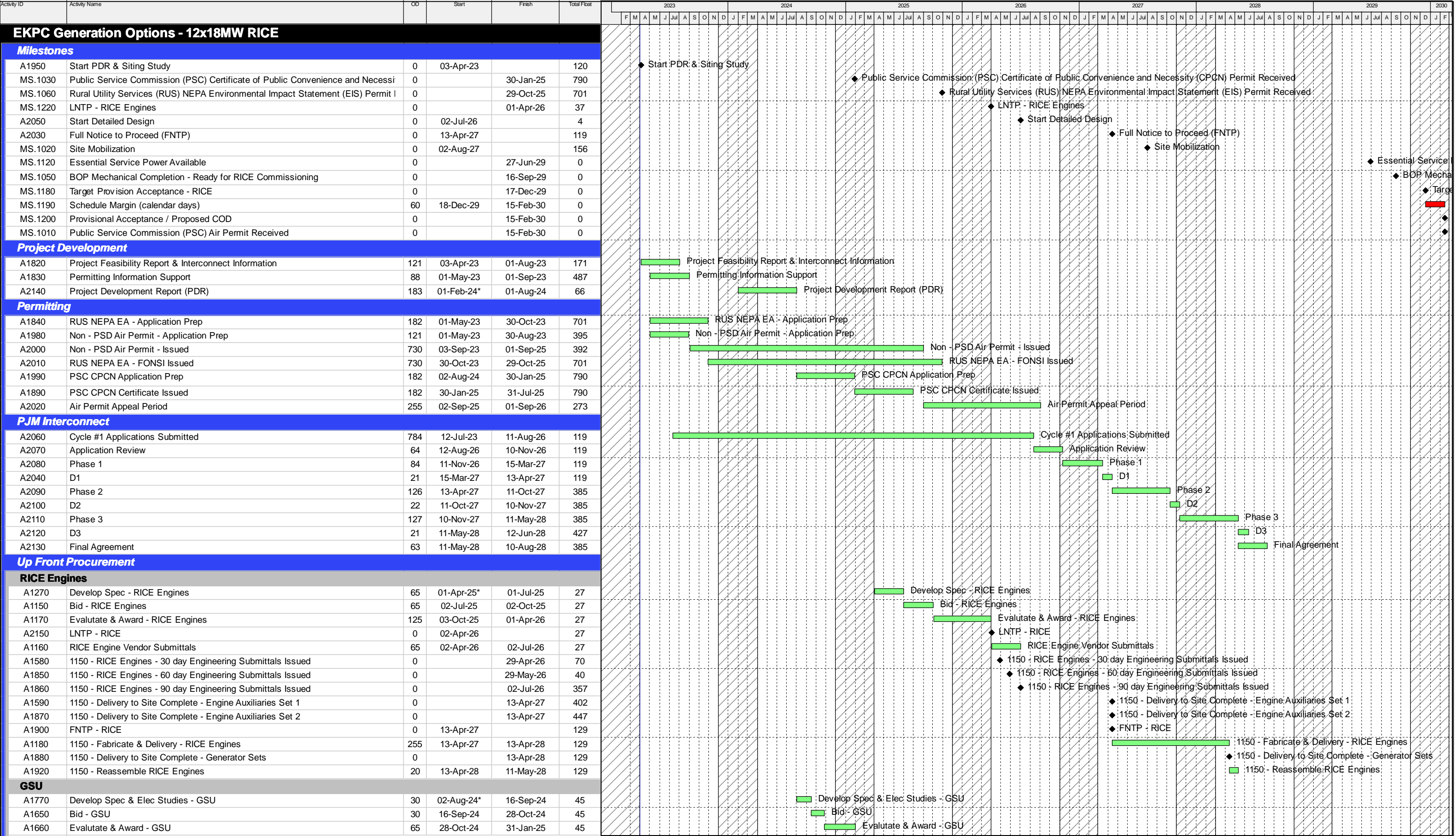
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| | | | | | | | | | | | | | | | BURNS MCDONNELL 9400 WARD PARKWAY KANSAS CITY, MO 64114 816-333-9400 Burns & McDonnell Engineering Co., Inc. Firm Reg. No. 43 | | | | |  EAST KENTUCKY POWER COOPERATIVE | | | | | J.K. SMITH STATION ONE-LINE DIAGRAM 5 X SC F-CLASS | | | | |
| | | | | | | | | | | designed B. OXANDALE | | | | | contract 157785 | | | | | drawing EE001 | | | | | sheet 1 of 2 sheets | | | | |
| A 07/21/23 BO JB ISSUED FOR REVIEW | | | | | | | | | | detailed B. OXANDALE | | | | | rev. - | | | | | file 157785 EE001 SH1.dwg | | | | | | | | | |
| no. | date | by | ckd | description | no. | date | by | ckd | description | | | | | | | | | | | | | | | | | | | | |




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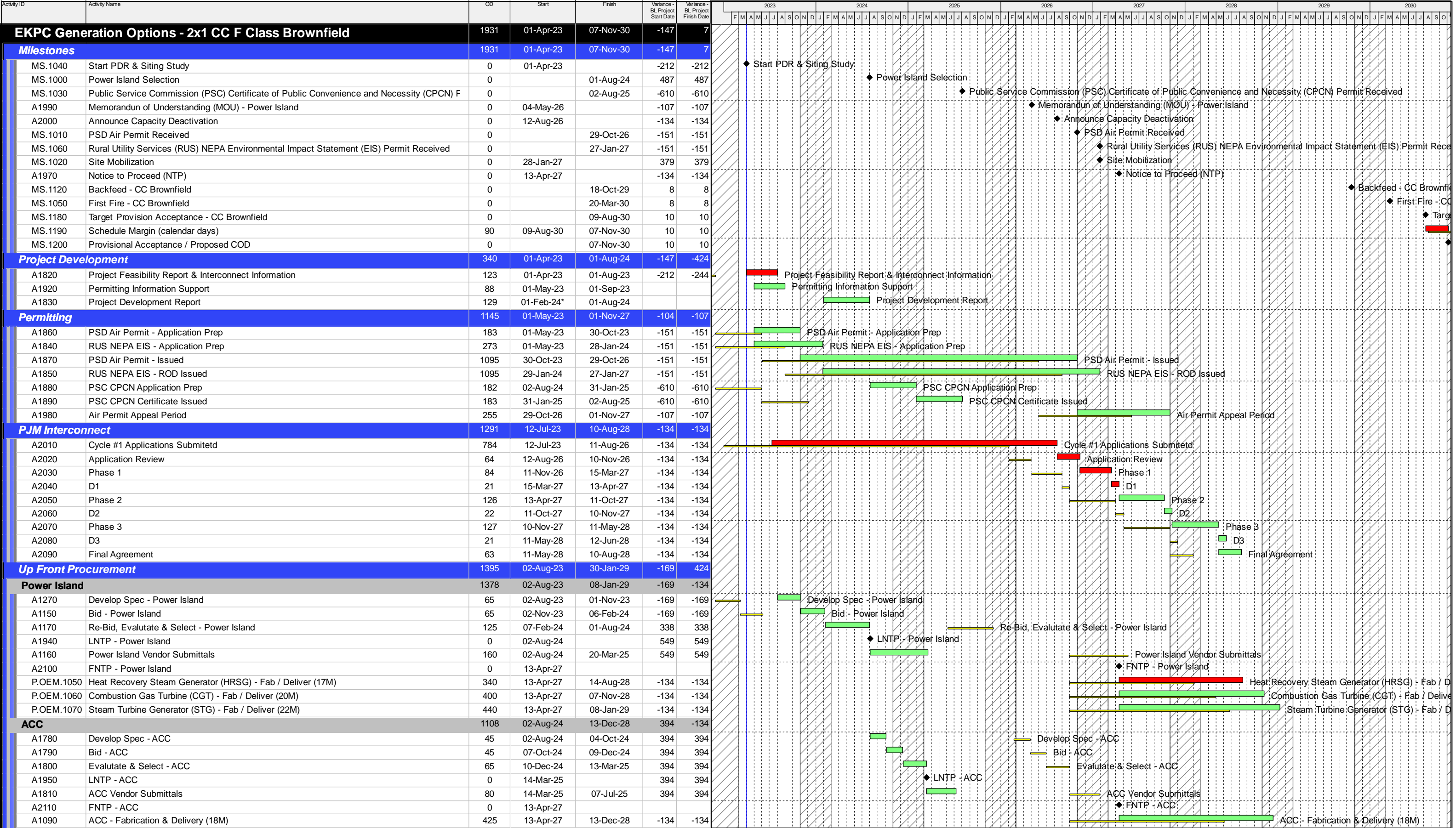
[illegible]

APPENDIX F – PROJECT SCHEDULES



[illegible]

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|---|--|--|------|----------|---------|----------|
| <div> <div>Start Date</div> <div>03-Apr-23</div> </div> <div> <div>Finish Date</div> <div>15-Feb-30</div> </div> <div> <div>Data Date</div> <div>01-Apr-23</div> </div> <div> <div>Run Date</div> <div>27-Jun-23</div> </div> |  | <div>EKPC Generation Options - 12x18MW RICE</div> <div>Project Schedule</div> <div>Page 2 of 2</div> | Date | Revision | Checked | Approved |
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APPENDIX G – PERFORMANCE AND EMISSIONS

| | | | |
|----------------------|--|------------------|------------|
| Title: | Indicative emissions US projects 18V50DF-D | Doc.ID: | DBAD556996 |
| | | Revision: | h |
| Author: | RAUDASKOSKI, RIITTA (RRA023) | Status: | Approved |
| Approved by: | Raudaskoski, Riitta/2/28/2023 | Pages: | 1 (2) |
| Organisation: | ENERGY BUSINESS (WÄRTSILÄ CORPORATION) | | |

This document provides indicative stack emissions at steady state operation conditions for one Wärtsilä 18V50DF-D (60Hz/514 rpm, pipeline natural gas/ultra-low sulphur diesel, high MN, ambient conditions according to ISO 3046) engine equipped with an efficient emission control system. Emission control system includes a selective catalytic reduction system and an oxidation catalyst. The estimates are for US new build projects only. The figures are indicative and **shall under no circumstances be considered guarantee data**.

Natural gas operation (pilot fuel ultra-low sulphur diesel (Sulphur content of <0.0015 wt %))

| | | 100% engine load | 75% engine load | 50% engine load | 40% engine load |
|---|---|------------------------|-----------------------|-----------------------|-----------------------|
| NO _x (as NO ₂) | ppm-v, 15 % O ₂ , dry | 6 | 6 | 9 | 9 |
| CO | ppm-v, 15 % O ₂ , dry | 15 | 15 | 15 | 15 |
| VOC (as CH ₄) ^{Note 2} | ppm-v, 15 % O ₂ , dry | 26 | 26 | 37 | 42 |
| VOC (as C ₃ H ₈) ^{Note 2} | ppm-v, 15 % O ₂ , dry | 8.67 | 8.67 | 12.33 | 14 |
| CH ₂ O | ppm-v, 15 % O ₂ , dry | 0.7 | 0.9 | 1.3 | 1.6 |
| NH ₃ | ppm-v, 15 % O ₂ , dry | 10 | 10 | 10 | 10 |
| PM10 (total) | mg/Nm ³ , 15% O ₂ , dry ^{Note 1} | 15 | 15 | 20 | 20 |
| NO _x (as NO ₂) | lb/h | 3.19 | 2.48 | 2.57 | 2.11 |
| CO | lb/h | 4.85 | 3.78 | 2.61 | 2.14 |
| VOC (as CH ₄) ^{Note 2} | lb/h | 4.81 | 3.75 | 3.68 | 3.44 |
| VOC (as C ₃ H ₈) ^{Note 2} | lb/h | 4.41 | 3.44 | 3.37 | 3.15 |
| CH ₂ O | lb/h | 0.243 | 0.243 | 0.243 | 0.243 |
| NH ₃ | lb/h | 1.97 | 1.53 | 1.06 | 0.87 |
| PM10 (total) | lb/h | 3.88 | 3.02 | 2.78 | 2.29 |

Note 1. Nm³ defined at 0 °C and 101.3 kPa (abs)

Note 2. The VOC concentration of the flue gas in the stack is dependent on the composition of the natural gas. Emission values in the table above are valid for fuel gas with max. VOC concentration (sum of propane + butane + pentane + hexane) 0.5 vol-%. If the concentration (sum of propane + butane + pentane + hexane) in the feed natural gas exceeds 0.5 vol-%, the VOC emissions shall be corrected according to the table below. In the table the sum of propane + butane + pentane + hexane is denoted C_{GasVOC}.

| | Factor for VOC correction |
|---|--------------------------------------|
| Actual feed gas C_{GasVOC} | VOC number guarantee * factor |
| 0 vol-% ≤ C _{GasVOC} < 0.50 vol-% | 1.0 |
| 0.50 vol-% ≤ C _{GasVOC} < 1.00 vol-% | 1.3 |
| 1.00 vol-% ≤ C _{GasVOC} < 1.50 vol-% | 1.6 |

Back-up fuel operation (ultra-low sulphur diesel (Sulphur content of <0.0015 wt %))

| | | 100% engine load | 75% engine load | 50% engine load | 40% engine load |
|---|---|------------------------|-----------------------|-----------------------|-----------------------|
| NO _x (as NO ₂) | ppm-v, 15 % O ₂ , dry | 35 | 35 | 40 | 40 |
| CO | ppm-v, 15 % O ₂ , dry | 20 | 20 | 20 | 20 |
| VOC (as CH ₄) | ppm-v, 15 % O ₂ , dry | 40 | 40 | 40 | 40 |
| VOC (as C ₃ H ₈) | ppm-v, 15 % O ₂ , dry | 13.33 | 13.33 | 13.33 | 13.33 |
| NH ₃ | ppm-v, 15 % O ₂ , dry | 10 | 10 | 10 | 10 |
| PM10 (total) | mg/Nm ³ , 15% O ₂ , dry | 20 | 20 | 30 | 30 |
| PM (dry) | mg/Nm ³ , 15% O ₂ , dry ^{Note 1} | 15 | 15 | 25 | 25 |
| NO _x (as NO ₂) | lb/h | 20.10 | 15.08 | 11.92 | 10.01 |
| CO | lb/h | 6.99 | 5.25 | 3.63 | 3.05 |
| VOC (as CH ₄) | lb/h | 8.01 | 6.01 | 4.16 | 3.49 |
| VOC (as C ₃ H ₈) | lb/h | 7.34 | 5.50 | 3.81 | 3.20 |
| NH ₃ | lb/h | 2.13 | 1.59 | 1.10 | 0.93 |
| PM10 (total) | lb/h | 5.60 | 4.20 | 4.35 | 3.66 |
| PM (dry) | lb/h | 4.20 | 3.15 | 3.63 | 3.05 |

Note 1. Nm³ defined at 0 °C and 101.3 kPa (abs)

EKPC - Smith

2x1 SCC6-5000F - Estimated Exhaust Stack Emissions
Combined Cycle with ULN Combustor

Estimated Emissions Data Sheet

June 21, 2023

| SITE CONDITIONS: | CASE 1 | CASE 2 | CASE 3 | CASE 4 | CASE 5 | CASE 6 | CASE 7 | CASE 8 | CASE 9 | CASE 10 | CASE 11 | CASE 12 | CASE 13 | CASE 14 |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| FUEL TYPE | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas | Natural Gas |
| GT LOAD LEVEL | 100% | 75% | 50% | 36% | 100% | 75% | 50% | 32% | 100% | 75% | 100% | 72% | 48% | 34% |
| NET FUEL HEATING VALUE, Btu/lb _m (LHV) | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 |
| GROSS FUEL HEATING VALUE, Btu/lb _m (HHV) | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 | 22,913 |
| EVAPORATIVE COOLER STATUS | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON | ON | ON | OFF | OFF | OFF |
| AMBIENT DRY BULB TEMPERATURE, °F | 11 | 11 | 11 | 11 | 59 | 59 | 59 | 59 | 59 | 59 | 85 | 85 | 85 | 85 |
| AMBIENT RELATIVE HUMIDITY, % | 70 | 70 | 70 | 70 | 60 | 60 | 60 | 60 | 60 | 60 | 65 | 65 | 65 | 65 |
| BAROMETRIC PRESSURE, psi _a | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 | 14.281 |
| GT FUEL FLOW, lb _m /hr | 107,459 | 87,591 | 67,741 | 56,605 | 108,679 | 87,194 | 67,384 | 52,464 | 108,061 | 87,275 | 104,488 | 82,001 | 63,556 | 52,283 |
| GT HEAT INPUT, MMBtu/hr (HHV) | 2,462 | 2,007 | 1,552 | 1,297 | 2,490 | 1,998 | 1,544 | 1,202 | 2,476 | 2,000 | 2,394 | 1,879 | 1,456 | 1,198 |

GT EMISSIONS (Based on USEPA Test Methods):

| | | | | | | | | | | | | | | |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| NO _x , ppmvd @ 15% O ₂ | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| NO _x , lb _m /hr as NO ₂ | 138 | 112 | 86.2 | 71.8 | 140 | 112 | 85.8 | 66.6 | 139 | 112 | 134 | 105 | 81.1 | 66.5 |
| CO, ppmvd @ 15% O ₂ | 4 | 4 | 9 | 9 | 4 | 4 | 9 | 9 | 4 | 4 | 4 | 4 | 9 | 9 |
| CO, lb _m /hr | 22.4 | 18.2 | 31.5 | 26.2 | 22.7 | 18.1 | 31.3 | 24.3 | 22.5 | 18.1 | 21.8 | 17.1 | 29.6 | 24.3 |

STACK EXHAUST GAS

| | | | | | | | | | | | | | | |
|-----------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| EXHAUST FLOW, lb _m /hr | 4,547,062 | 3,784,972 | 3,162,594 | 2,784,942 | 4,687,542 | 3,700,617 | 3,083,186 | 2,583,812 | 4,617,463 | 3,704,759 | 4,480,586 | 3,528,162 | 2,940,996 | 2,561,551 |
| STACK TEMPERATURE, °F | 201 | 191 | 184 | 180 | 206 | 188 | 180 | 173 | 204 | 189 | 212 | 196 | 188 | 182 |
| OXYGEN, Vol. % | 12.05 | 12.27 | 12.94 | 13.36 | 12.07 | 11.96 | 12.62 | 13.22 | 11.94 | 11.92 | 11.67 | 11.79 | 12.41 | 12.87 |
| CARBON DIOXIDE, Vol. % | 4.14 | 4.04 | 3.73 | 3.54 | 4.05 | 4.10 | 3.80 | 3.52 | 4.09 | 4.10 | 4.05 | 4.03 | 3.74 | 3.52 |
| WATER, Vol. % | 8.02 | 7.83 | 7.24 | 6.87 | 8.68 | 8.77 | 8.19 | 7.67 | 8.98 | 9.00 | 10.58 | 10.24 | 9.69 | 9.29 |
| NITROGEN, Vol. % | 74.89 | 74.97 | 75.20 | 75.34 | 74.31 | 74.28 | 74.50 | 74.71 | 74.10 | 74.10 | 72.83 | 73.08 | 73.29 | 73.44 |
| ARGON, Vol. % | 0.89 | 0.89 | 0.90 | 0.90 | 0.88 | 0.88 | 0.89 | 0.89 | 0.88 | 0.88 | 0.87 | 0.87 | 0.87 | 0.87 |
| MOLECULAR WEIGHT | 28.46 | 28.47 | 28.51 | 28.53 | 28.38 | 28.37 | 28.41 | 28.44 | 28.35 | 28.35 | 28.17 | 28.21 | 28.24 | 28.27 |

STACK EMISSIONS (Based on USEPA Test Methods):

| | | | | | | | | | | | | | | |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| NO _x , ppmvd @ 15% O ₂ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| NO _x , lb _m /hr as NO ₂ | 18.4 | 14.9 | 11.5 | 9.6 | 18.6 | 14.9 | 11.4 | 8.9 | 18.5 | 14.9 | 17.9 | 14.0 | 10.8 | 8.9 |
| NH ₃ , ppmvd @ 15% O ₂ | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| NH ₃ , lb _m /hr | 34.1 | 27.7 | 21.3 | 17.7 | 34.5 | 27.5 | 21.2 | 16.4 | 34.3 | 27.6 | 33.2 | 25.9 | 20.0 | 16.4 |
| CO, ppmvd @ 15% O ₂ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| CO, lb _m /hr | 11.2 | 9.1 | 7.0 | 5.8 | 11.3 | 9.1 | 7.0 | 5.4 | 11.3 | 9.1 | 10.9 | 8.5 | 6.6 | 5.4 |
| VOC, ppmvd @ 15% O ₂ as CH ₄ | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VOC, lb _m /hr as CH ₄ | 3.2 | 2.6 | 2.0 | 1.7 | 3.2 | 2.6 | 2.0 | 1.5 | 3.2 | 2.6 | 3.1 | 2.4 | 1.9 | 1.5 |
| UHC, ppmvd @ 15% O ₂ as CH ₄ | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| UHC, lb _m /hr as CH ₄ | 6.4 | 5.2 | 4.0 | 3.3 | 6.5 | 5.2 | 4.0 | 3.1 | 6.5 | 5.2 | 6.3 | 4.9 | 3.8 | 3.1 |
| Particulate Matter (PM ₁₀ or PM _{2.5}), lb _m /hr | 10.0 | 8.3 | 7.0 | 6.1 | 10.3 | 8.1 | 6.8 | 5.7 | 10.1 | 8.1 | 9.7 | 7.6 | 6.4 | 5.6 |
| CO ₂ , lb _m /hr | 301,500 | 245,754 | 190,061 | 158,818 | 304,923 | 244,641 | 189,061 | 147,198 | 303,189 | 244,868 | 293,163 | 230,072 | 178,319 | 146,691 |

NOTES:

- All data is ESTIMATED, NOT guaranteed and is for ONE unit.
 - Fuel gas composition, by moles, is: 89.633% CH₄, 8.289% C₂H₆, 0.348% C₃H₈, 0.006% i-C₄H₁₀, 0.011% n-C₄H₁₀, 0.001% i-C₅H₁₂, 0.001% n-C₅H₁₂, 1.323% N₂, 0.388% CO₂, and assumes 0.2 grains S/100 SCF.
 - Gas fuel must be in compliance with the Siemens Gas Fuel Specification.
 - NO_x and CO /VOC based on the use of Low Load CO hardware (LLCO) for Cases 4, 8, and 14.
 - Stack NO_x and CO assume the use of an SCR and oxidation catalyst, respectively.
 - VOC consist of total hydrocarbons excluding methane and ethane and are expressed in terms of methane (CH₄).
 - Particulates are per US EPA Method 5 and 202 (front and back half), and consist of either all PM₁₀ or all PM_{2.5} (one or the other, the difference cannot be accurately determined, and the values given are not additive).
 - CO₂ is calculated based on 40CFR75 Appendix G, Equation G-4, with the standard E value of 1,040.
 - Emissions exclude ambient air contributions and assume steady-state conditions.
 - Please be advised that the information contained in this transmittal has been prepared and is being transmitted per customer request specifically for information purposes only.
- Data included in any permit application or Environmental Impact Statement are strictly the customer's responsibility. Siemens Energy is available to review permit application data upon request.

Siemens 5000F Gas Turbine Performance and Emissions

GTG Performance Data Sheet

F-Class Turbine

| | Case # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
|--|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ambient Dry Bulb Temperature | F | 11.0 | 11.0 | 11.0 | 11.0 | 59.0 | 59.0 | 59.0 | 59.0 | 59.0 | 59.0 | 85.0 | 85.0 | 85.0 | 85.0 |
| Ambient Relative Humidity | % | 70% | 70% | 70% | 70% | 60% | 60% | 60% | 60% | 60% | 60% | 65% | 65% | 65% | 65% |
| Ambient Wet Bulb Temperature | F | 9.4 | 9.4 | 9.4 | 9.4 | 51.4 | 51.4 | 51.4 | 51.4 | 51.4 | 51.4 | 75.4 | 75.4 | 75.4 | 75.4 |
| Altitude | ft | 790 | 790 | 790 | 790 | 790 | 790 | 790 | 790 | 790 | 790 | 790 | 790 | 790 | 790 |
| Ambient Pressure | psia | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 | 14.28 |
| Inlet Conditioning Operating Status | | OFF | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON | ON | ON | OFF | OFF | OFF |
| Evaporative Cooler Effectiveness | | 90% | 90% | 90% | 90% | 90% | 90% | 90% | 90% | 90% | 90% | 90% | 90% | 90% | 90% |
| Inlet Loss | in H2O | 3.2 | 2.3 | 1.6 | 1.2 | 3.8 | 2.4 | 1.7 | 1.2 | 3.6 | 2.3 | 3.6 | 2.3 | 1.6 | 1.2 |
| FUEL GAS ANALYSIS | | | | | | | | | | | | | | | |
| CH4 | Mol % | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% | 89.633% |
| C2H6 | Mol % | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% | 8.289% |
| C3H8 | Mol % | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% | 0.348% |
| i-C4H10 | Mol % | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% | 0.006% |
| n-C4H10 | Mol % | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% | 0.011% |
| i-C5H12 | Mol % | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% |
| n-C5H12 | Mol % | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% | 0.001% |
| n-C6H14 | Mol % | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% |
| N2 | Mol % | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% | 1.323% |
| CO2 | Mol % | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% | 0.388% |
| Total Sulfur (Maximum) | grain/100 SCF | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Fuel LHV (Btu/lb) | Btu/lbm | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 | 20,680 |
| GAS TURBINE PERFORMANCE (per GTG) | | | | | | | | | | | | | | | |
| Gas Turbine Load | % | 100% | 75% | 50% | MECL | 100% | 75% | 50% | MECL | 100% | 75% | 100% | 75% | 50% | MECL |
| Gas Turbine Gross Electrical Output | kW | 265344 | 198411 | 131352 | 95673 | 265401 | 198479 | 131424 | 84787 | 265411 | 198482 | 249744 | 179274 | 118575 | 84116 |
| Gas Turbine Auxiliary Load | kW | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Gas Turbine Net Electrical Output | kW | 265344 | 198411 | 131352 | 95673 | 265281 | 198359 | 131304 | 84667 | 265291 | 198362 | 249624 | 179154 | 118455 | 83996 |
| Gas Turbine Fuel Input (LHV) | MMBtu/hr | 2.231 | 1.814 | 1.404 | 1.174 | 2.255 | 1.803 | 1.395 | 1.087 | 2.242 | 1.805 | 2.158 | 1.686 | 1.308 | 1.077 |
| Fuel Gas Temperature | F | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 | 440.0 |
| Gas Turbine Gross Heat Rate (LHV) | Btu/kWh | 5,649 | 6,039 | 6,476 | 6,866 | 5,786 | 5,915 | 6,331 | 6,828 | 5,775 | 5,904 | 6,320 | 5,964 | 6,384 | 5,773 |
| Gas Turbine Net Heat Rate (LHV) | Btu/kWh | 5,852 | 6,043 | 6,483 | 6,874 | 5,789 | 5,919 | 6,338 | 6,836 | 5,779 | 5,907 | 6,294 | 5,968 | 6,391 | 5,782 |
| System Power Factor | | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 | 0.85 |
| GAS TURBINE EXHAUST CONDITIONS @ GAS TURBINE EXHAUST FLANGE | | | | | | | | | | | | | | | |
| Gas Turbine Exhaust Loss (total) | inH2O | 20.9 | 15.0 | 10.6 | 8.2 | 22.5 | 14.8 | 10.4 | 7.3 | 21.8 | 14.7 | 20.9 | 13.6 | 9.6 | 7.3 |
| Gas Turbine Exhaust Loss (static) | inH2O | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts | Typical 3-Pressure HRSG w/ CO & SCR Catalysts |
| CTG Exhaust Flow | lb/hr | 4549029 | 3786613 | 3163981 | 2786163 | 4685007 | 3698616 | 3081525 | 2582427 | 4615608 | 3703270 | 4478250 | 3526357 | 2939501 | 2560442 |
| CTG Exhaust Temperature | F | 1104 | 1129 | 1129 | 1129 | 1125 | 1180 | 1180 | 1180 | 1124 | 1173 | 1144 | 1198 | 1198 | 1198 |
| Exhaust Gas Specific Heat | Btu/lbm/F | | | | | | | | | | | | | | |
| Exhaust Energy | MMBtu/hr | | | | | | | | | | | | | | |
| Gas Turbine Exhaust Gas Analysis | | | | | | | | | | | | | | | |
| CTG Exhaust Argon | %wt | 0.89 | 0.89 | 0.90 | 0.90 | 0.88 | 0.88 | 0.89 | 0.89 | 0.88 | 0.88 | 0.87 | 0.87 | 0.87 | 0.87 |
| CTG Exhaust Nitrogen | %wt | 74.9 | 75.0 | 75.2 | 75.3 | 74.3 | 74.3 | 74.5 | 74.7 | 74.1 | 74.1 | 73.4 | 73.1 | 73.3 | 73.4 |
| CTG Exhaust Oxygen | %wt | 12.1 | 12.3 | 12.9 | 13.4 | 12.1 | 12.0 | 12.6 | 13.2 | 11.9 | 11.9 | 11.7 | 11.8 | 12.4 | 12.9 |
| CTG Exhaust Carbon Dioxide | %wt | 4.1 | 4.0 | 3.7 | 3.5 | 4.1 | 3.8 | 3.5 | 3.5 | 4.1 | 4.1 | 4.0 | 3.7 | 3.7 | 3.5 |
| CTG Exhaust H2O | %wt | 8.0 | 7.8 | 7.2 | 6.9 | 8.7 | 8.8 | 8.2 | 7.7 | 9.0 | 9.0 | 10.6 | 10.2 | 9.7 | 9.3 |
| Exhaust Gas Molecular Weight | %wt | 28.5 | 28.5 | 28.5 | 28.5 | 28.4 | 28.4 | 28.4 | 28.4 | 28.4 | 28.3 | 28.2 | 28.2 | 28.2 | 28.3 |
| Gas Turbine Exhasut Emissions (per GTG, Corrected to 15% O2) | | | | | | | | | | | | | | | |
| CO @ 15% O2 | ppmvd | 4 | 4 | 9 | 9 | 4 | 4 | 9 | 9 | 4 | 4 | 4 | 4 | 9 | 9 |
| NOx @ 15% O2 | ppmvd | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| VOC @ 15% O2 | ppmvd | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| UHC @ 15% O2 | ppmvd | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| PM10 or PM2.5 (front and back half) | lb/hr | 9.7 | 8.1 | 6.8 | 6.0 | 9.9 | 7.8 | 6.5 | 5.5 | 9.8 | 7.8 | 9.4 | 7.4 | 6.2 | 5.4 |
| CO2 Emissions | lb/hr | 302629 | 246062 | 190472 | 159270 | 305906 | 244670 | 189265 | 147512 | 304189 | 244951 | 292719 | 228812 | 177525 | 146185 |

APPENDIX H – CAPITAL COST ESTIMATES

CLASS 4 CAPITAL COST ESTIMATE

EKPC

OPTION SUMMARY

KENTUCKY

BMcD #157787

| Acct | Area / Discipline | 214 MW RICE Liberty | Total Cost 3x SCGT Tygarts Creek | 5x SCGT Smith | 2x1 CCGT Cooper | 2x1 CCGT Smith | 3x1 CCGT Tygarts Creek |
|-----------------------|--|------------------------|--|------------------------|------------------------|------------------------|---------------------------|
| | Total Direct Cost | \$301,000,000 | \$360,000,000 | \$668,000,000 | \$681,000,000 | \$725,000,000 | \$1,016,000,000 |
| | Engineering, CM/CI and Startup | \$48,000,000 | \$90,000,000 | \$130,000,000 | \$148,000,000 | \$175,000,000 | \$210,000,000 |
| | Total Indirect Cost | \$48,000,000 | \$96,000,000 | \$130,000,000 | \$148,000,000 | \$175,000,000 | \$210,000,000 |
| | Total Direct and Indirect Costs | \$349,000,000 | \$456,000,000 | \$798,000,000 | \$829,000,000 | \$900,000,000 | \$1,226,000,000 |
| | Contingency and Escalation | \$92,000,000 | \$217,000,000 | \$377,000,000 | \$409,000,000 | \$441,000,000 | \$593,000,000 |
| | Total Project Cost | \$441,000,000 | \$673,000,000 | \$1,175,000,000 | \$1,238,000,000 | \$1,341,000,000 | \$1,819,000,000 |
| | Owner Cost - General, Taxes & Fees | Excluded | Excluded | Excluded | Excluded | Excluded | Excluded |
| | Owner Cost - Builders Risk Insurance | \$9,000,000 | \$12,080,000 | \$21,000,000 | \$11,000,000 | \$25,000,000 | \$33,000,000 |
| | Owner Cost - Transmission | Excluded | Excluded | Excluded | Excluded | Excluded | Excluded |
| | Owner Cost - Gas Line | Excluded | Excluded | Excluded | Excluded | Excluded | Excluded |
| | Owner Cost - Land Acquisition | Excluded | Excluded | Excluded | Excluded | Excluded | Excluded |
| | Owner Cost - Fuel | Excluded | Excluded | Excluded | Excluded | Excluded | Excluded |
| | Owner Cost - Demolition Allowance | Excluded | Excluded | \$4,000,000 | \$4,000,000 | \$4,000,000 | Excluded |
| | Owner Cost - Owner Contingency | Excluded | Excluded | Excluded | Excluded | Excluded | Excluded |
| | Total Project Cost Incl. Owner Cost | \$450,000,000 | \$685,080,000 | \$1,200,000,000 | \$1,253,000,000 | \$1,370,000,000 | \$1,852,000,000 |
| Revision 0 - 08/01/23 | Including Escalation \$/KW | \$2,083 | \$993 | \$1,091 | \$1,728 | \$1,851 | \$1,684 |
| | No Escalation \$/KW | \$1,819 | \$752 | \$830 | \$1,299 | \$1,401 | \$1,275 |