Project Execution Plan

Within the past ten years we have successfully engineered, procured and constructed over 8,000 MW of combined cycle power plants for a diverse client base throughout the world. This continued success has not gone unnoticed with the High Bridge Combined Cycle Project and the Tracy Combined Cycle Project being selected as ***two of the top five gas fired projects for*** by ***Power Magazine***. Silverhawk Project was also recognized as the ***Power Engineering Combined Cycle Power Plant of the Year.*** Our Continuous Improvement Process (CIP) has spurred innovations that have resulted in plants that thoroughly consider long term O&M requirements and are ergonomic to the End User. The plants we design substantially limit environmental impacts, creating plants that others strive to emulate. While other firms ventured away from combined cycle work into the large coal market, CH2M HILL was steadfast in combined cycle work, thus giving us a clear advantage over others with our current and applicable experience.

This experience is the basis for the development of our Project Execution Plan for the Cricket Valley Energy Center (CVEC) Combined Cycle Project.

Overview

For a project to be successful, we believe it must begin with a proven Project Execution Plan that is thorough and complete. CH2M HILL's Integrated in-house EPC Execution Plan will provide Cricket Valley Energy Center, LLC (CVEC) with the confidence that their project goals will be met effectively, virtually eliminating the "learning curve" others may face with prime/sub teams or teams with no history of lessons-learned from constructing such plants in the region.

The plan is adjusted as the project progresses and is further refined after the completion of each project, thus ensuring we maintain optimal practices while adjusting for site specific requirements.

Our Execution Strategy is structured to meet CVEC's core objectives for the Cricket Valley Energy Center Project and to mitigate project risks.

Integrated O&M Experience

CH2M HILL's power plant professionals come from backgrounds rich in startup, operations, and maintenance knowledge of power plants. This includes substantial construction experience in the US on projects with Energy Capital Partners, Origin Energy, Xcel Energy, Arizona Public Service, NV Energy, and others. This experience results in facilities designed and constructed specifically to maximize operational efficiency and to minimize maintenance complexity, duration and cost.

Proven Project Design

Our project design team brings years of "hands on" field and startup experience to the project that synergistically enhances the accessibility, operability, and maintainability of the plant.

Proven Execution Strategy

Our proposed integrated EPC Execution Plan is based on the same successful plan used on all of our recent combined cycle projects. This will be further tailored upon award of the project to meet CVEC's Scope of Work and Technical Specifications and to address logistics, environmental protection, and specific site concerns.

Our Company Culture instills the importance of establishing and maintaining long-term relationships. We are pleased to bring the benefits of this culture to CVEC with the full expectation that we will work as part of your integrated team to achieve Best Value—a balance of first cost, which includes a plant configured and designed for safe, efficient, long-term operations; as well as on-time delivery.

Key personnel from our company's staff of over 23,000 professionals will be made available to support the CH2M HILL project team as we develop and execute the project pursuant to CVEC's specific requirements for Cricket Valley Energy Center. On this project we will utilize our veteran personnel located in our Atlanta office for the overall project management, engineering, procurement, and for the support of our construction and startup teams.

Engineering and Procurement Execution

Our Engineering Execution Plan is designed to take advantage of lessons learned from our other combined cycle projects and to minimize interferences and field changes that impact schedule and productivity. Our engineering disciplines develop design documents that offer proven and ease-of-construction designs to meet or exceed all of CVEC's goals, specifications, and requirements. The ergonomics of our plants provided unique added value: We have created plant environments that are safe and easy to maintain, access and operate. We have gathered significant amount of information and used that information in developing front-end engineering and installation plans.

From 3D model…

To Constructed Plant…

Kickoff Workshop

We recommend that, as soon as practical following receipt of the notice to proceed, key members of the project team (including participants from CVEC, OEM, Major equipment suppliers and CH2M HILL participate in a Project Kickoff Workshop to:

- Review and align project goals
- Kickoff the start of key specifications
- Review value engineering opportunities
- Review status of technical issues, such as permits, existing site conditions, water needs and noise
- Review the project schedule
- Review administrative procedures and establish formal lines of communication
- Implement a "safety-first" approach to the work, starting with the incorporation of safety into the design process to set the precedent throughout the project
- Begin the commissioning-driven approach to achieve the planned completion date
- Review reporting requirements

The Kickoff Workshop is an environment where team members will develop the personal relationships that will encourage cooperation throughout the project—one of the keys to executing a successful project.

Construction and Startup Participation

We will co-locate some of our key construction and startup personnel with our engineering and design personnel soon after award of the Cricket Valley Energy Center Project. By reviewing the preliminary design with the engineering, construction, and startup personnel, we identify potential interferences, barriers to construction and startup, as well as potential schedule impacts early in the

design process—at a time when changes can be incorporated with minimal impact.

The benefit to this approach is a well-thought out and efficient design that is integrated with the Construction and Startup Execution Plan.

Model Review

CH2M HILL recognizes and values the input and participation of the Cricket Valley Energy Center Operations team throughout the project. We will conduct periodic design/model review meetings where we will "walk-down" all new items with the Operations staff and Maintenance personnel. These design/model review meetings can be conducted in one of our offices, CVEC offices or through online conferencing for convenience.

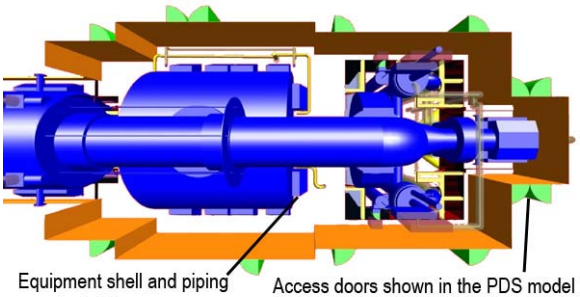
P&IDs/Mechanical Design

Our design activities begin with finalizing the plant's overall thermal, material, and water balances covering normal and extreme conditions of operation for normal and peak load. Sizing calculations are performed for all equipment and piping consistent with the heat and water balance requirements and the contract requirements. Piping material specifications are selected for each system, and line sizes are calculated to ensure proper diameter for reasonable velocities and pressure drops, and to ensure proper wall thickness for maximum pressure/ temperature conditions.

Upon completion of the sizing calculations, the system P&IDs are finalized and the supporting lists such as piping, valves, and specialty items are developed. Process data is generated for all system instrumentation including control and safety valves. Design descriptions are then developed for each system to describe system purpose, modes of operation, and control philosophy.

Model Smart Plant 3D (SP-3D)

Our proposed integrated Engineering and Design Tool will be Intergraph's SP-3D modeling software. Our 3D model provides dimensionally accurate data, ***minimizing potential interferences and significantly reducing field rework***. We extract detailed construction information ***directly from the model***, including piping isometrics, electrical and piping orthographic drawings, and various bills of material, ensuring dimensional accuracy.



Our 3D model also includes:

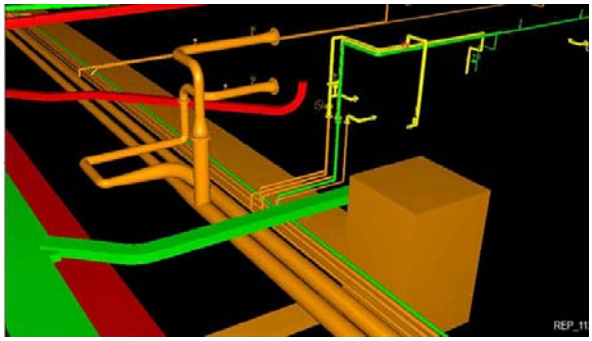
- BOP equipment outlines, including space allocations for maintenance access, and accurate model interface locations for piping, and electrical tie-ins.
- As available, a 3D model from the OEM suppliers is loaded into our SP-3D model or a shell model is developed from major equipment suppliers' engineering deliverables for interface locations. We have successfully worked with OEMs to develop these interfaces.
- Underground and above ground piping
- Major pipe supports
- Underground duct banks
- Cable trays

- Structural steel and access platforms
- Foundations/piling
- Instrumentation
- Major valves
- Access platforms and stairways

The 3D model is made available to the field at all times to assist onsite personnel in visualizing the design, planning the work and coordinating construction activities and progress measures.

Civil/Site Design

Our civil design site work is laid out using Autodesk's Land Development Desktop (LDD). Once the 3D site model is developed, the software is used to manipulate finish-grade elevations. LDD is also used to automatically generate site work stationing and offsets that ensure accuracy of information on the drawings.



Snapshot of PDS model showing piping, cable tray and underground design.

Site hydrology is modeled using PondPack® software, which, is a simplified procedure used to calculate storm runoff volume, peak rate of discharge, and storage volumes. The output parameters from PondPack® are used as the basis of design for site stormwater drainage control.

Stormwater drainage design, including culverts, ditches, catch basins, and pipes, is based on using FlowMaster® and StormCAD® software. These design tools are based on well-known formulas by: Darcy-Weisbach, Manning, Kutter, Hazen-Williams, and Rational Method. Pavement drainage and inlet design are based on the Federal Highway Administration (FHWA) HEC-22 methodology.

Pavement thickness design is based on using AASHTO's flexible and rigid pavement design methodology. Roadway geometry is verified for conflicts with vehicular maneuvering using PathPlanner® software by SIMTRA.

Structural Design

With the integration of STAAD PRO and Framework software, ***we export the output of these design tools directly into the SP-3D model.*** The structural 3D model incorporates all structural steel and foundation designs, ensuring identification of potential interferences with pipes, cable trays and duct banks. It also improves coordination with other design disciplines and construction.

The degree of structural information included in the model allows for overall foundation arrangement viewing. By having an overall view of all foundation locations and sizes, ***foundations can be combined or separated to promote safe and economical construction.***

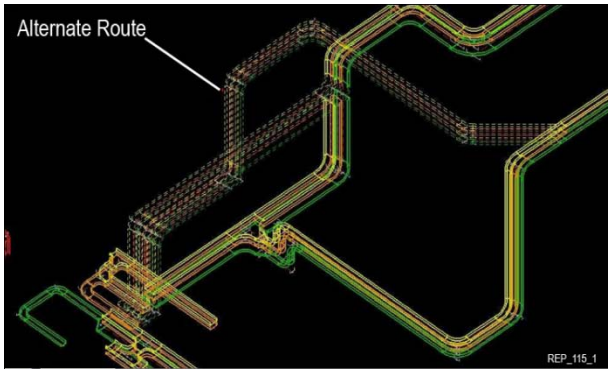
Piping Design

Piping design begins with the development of the Equipment Site Plan with input from all disciplines and field personnel ***based on lessons learned from previous combined cycle projects and CVEC requirements.***

From the site plan, the SP-3D model will be developed by adding the turbine equipment outlines, including space

allocations for operation and maintenance access, and accurate model interface locations for piping and electrical tie-ins.

Piping will be designed within the model, including all the elements of the piping such as valves and hanger supports and interference detection.



Interference reports are reviewed at least weekly to ensure there are no interferences among the piping and equipment elements and work by other disciplines.

Piping isometrics for critical and hot piping are extracted to perform stress analysis. The General Arrangement Drawing, Piping Orthographics, Piping Isometrics, and Hanger Support Detail drawings are extracted from the SP-3D model.

Architectural/Building Design

Architectural design includes providing the architectural elements of the building for the PDS model to detect interferences between the architectural elements and work by other disciplines. Noise mitigation is also a major goal in the selection and application of architectural elements.

Electrical Design

Electrical physical design consists of modeling underground ductbanks and manholes, aboveground cable tray and conduit in critical areas, and major electrical equipment including transformers, circuit breakers, iso-phase busses, and equipment enclosures in the SP-3D model. Benefits of SP-3D modeling of duct banks include:

- Tighter coordination between ductbanks and underground piping, thus reducing the real estate required to install the two systems as close as possible without interference.
- Non-interference with concrete foundations and piers.
- Accelerated scheduling by getting ductbanks installed before above ground construction activities.
- Underground space allocation for different disciplines early in the design of the project.
- Accurate stub-up coordinates for equipment interfaces.
- An economical means to explore alternate tray routes in conjunction with the field personnel to maximize space utilization and minimize labor and material requirements.
- Easier planning of construction activities, (e.g., cable pulling).
- A bill of materials for purchasing.
- Cable tray non-interferences with piping, structure, and equipment.
- As a complement to our SP-3D model, we use unique software to enhance inter-discipline coordination and construction and startup efforts.

Cablematic Plus is a customized cable and raceway management system that improves design productivity and quality. As a design tool, Cablematic Plus allows for automated routing of cables, automated sizing of raceways, comprehensive error checking, and direct importation of design information from other disciplines. The

database is moved to the jobsite and used to manage and coordinate cable and conduit installation through startup.

Instrumentation Design

We will begin instrumentation design by preparing a project Control and Operation Philosophy document. An Integrated Instrument List will be developed that includes OEM-supplied instruments. An input/output (I/O) list for the BOP instruments, equipment and "packages," instrument data sheets, instrumentation plans, and instrument installation details will be developed. The control loop diagrams detailing wiring between field devices and the distributed control system (DCS) for instruments, equipment, and packages will be prepared using our INtools® Integrated Instrument Database design tool.

We also utilize Intergraph's INtools® Instrument Design and Management System to design instrument and controls activities. This design tool ensures that design changes are properly managed and controlled to minimize impacts from changes during design.

Controls Design/DCS Integration

Control system architecture and programming experience gained from previous combined cycle projects allows us to adapt proven principles into the design. Control system programming, operator graphics, and interface requirements, proven by field commissioning and plant operation, can be quickly adapted.

Checking

To ensure a design that conforms to specifications, meets code requirements, and conforms to industry practices, periodic checks and reviews are conducted of all CH2M HILL design documents, including equipment vendor submittal documents. Cross-discipline reviews are also conducted to ensure a coordinated design (such as checking piping drawings for agreement with P&ID and process requirements, and checking structural foundation drawings for conformity to equipment requirements).

Safety, Constructability, and Startup Reviews

Prior to releasing drawings and specifications for construction and startup, we issue a complete design package for final review and comment by other CH2M HILL team members. Construction and startup personnel will have been actively involved in the development of the design process from the beginning of design. This is an opportunity for construction and startup staffs to confirm that their comments on the planned work activities have been incorporated and will give them a last look at identifying potential improvements.

Each team member is accountable when the design is issued for construction. Changes are expensive and time consuming, and minimized through this process.

We also incorporate the constructability and startup philosophy into the safety aspects of our projects. As an example, our safety constructability reviews isolate crane activities to ensure that personnel are not exposed to major overhead lifts. Our safety startup reviews identify unique conditions experienced during startup (e.g., steam blows) to limit personnel exposure to dangerous and abnormal plant conditions.

We identify and plan for personnel access and egress routes during routine operations

and during emergency conditions. Our review identifies construction sequences that can create unsafe conditions such as confined spaces, excavations, scaffolding, and barrier requirements. By identifying the condition up-front, we plan for and take the appropriate action to guard against its occurrence.

Early Design Submittals

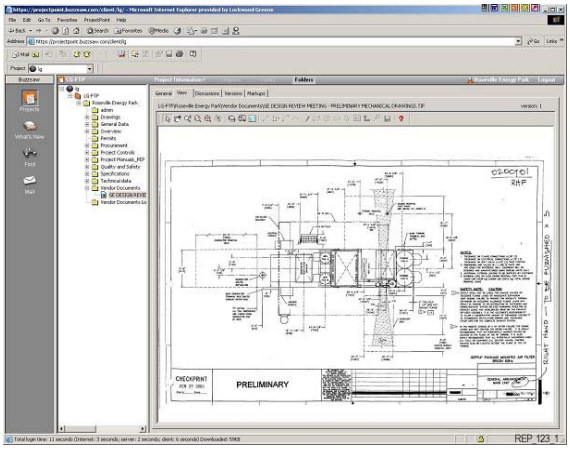
Electrical One-Line Diagrams, Preliminary P&IDs and General Arrangements will be submitted early in the project for review and approval by the Project team. Our strategy to meet the project schedule is to submit clearly defined drawing packages that expedite the preliminary reviews and approvals. Upon approval of key submittals, the specification and procurement cycle will begin with vendor bid and award, followed by submittal of vendor drawings for review.

Online Conferencing

We propose the use of our standard web-based data conferencing system, Microsoft Live Meeting, which will allow our teams to teleconference and review documents in real-time—reducing costs associated with deferred decisions and unnecessary travel.

Project Website

We use the SharePoint secure online project hosting service to exchange documents and files between team members to provide the team immediate access to current project information. We utilize the Primavera Contract Manager as an integrated "project workspace," which centralizes the management of project drawings, specifications, RFIs, and correspondence into one secure, online location, ***reducing cycle times and errors and increasing project control.*** With multiple levels of access privileges, user access to files can be easily controlled. All parties are notified every time a new file is uploaded to the site via e-mail.



Procurement Plan

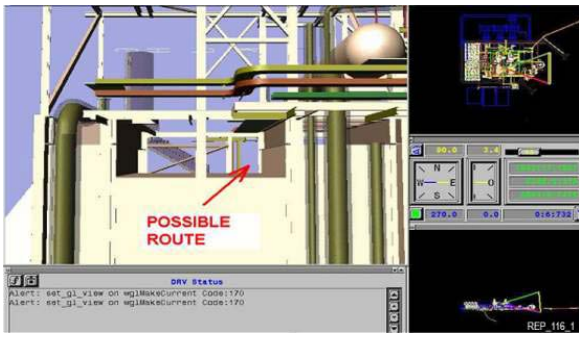
Equipment and construction subcontract procurement will be conducted by CH2M HILL in the ***highest ethical manner in accordance with established corporate standard procedures*** that flow down from our corporate procurement team, who routinely contracts with federal and state government agencies. The primary objective of our procurement approach is to acquire high-quality goods and services that meet or exceed CVEC's technical and commercial requirements at fair and competitive prices, while considering small, women-owned, minority owned and disadvantaged vendors to the fullest extent possible. CH2M HILL will develop a vendor list for the project. A detailed description of our Procurement procedures is located at the end of this section.

Approved Subcontractors

Procurement for the Cricket Valley Energy Center Project will begin at the earliest possible time. We have completed the Empire project in Rensselaer, NY and have experience with numerous contractors. We will make arrangements with various pre-qualified subcontractors for execution of portions of the construction based on our previous working experience with these firms, their demonstrated ability to offer high-quality work at competitive pricing, and their well developed relationships with the labor market. Where practical, we will identify and utilize qualified local contractors.

Operability, Maintainability and Accessibility

As part of CH2M HILL's kickoff meeting with CVEC, we will enlist the services of our Director of Engineering and our Director of Startup and Commissioning to meet with the plant's operating staff. We will review the design philosophy and discuss the optimization of the plant, review of plant and system operating philosophies and commissioning plans to identify potential alternatives and areas to improve operability and schedule during startup.



Construction and Startup Participation

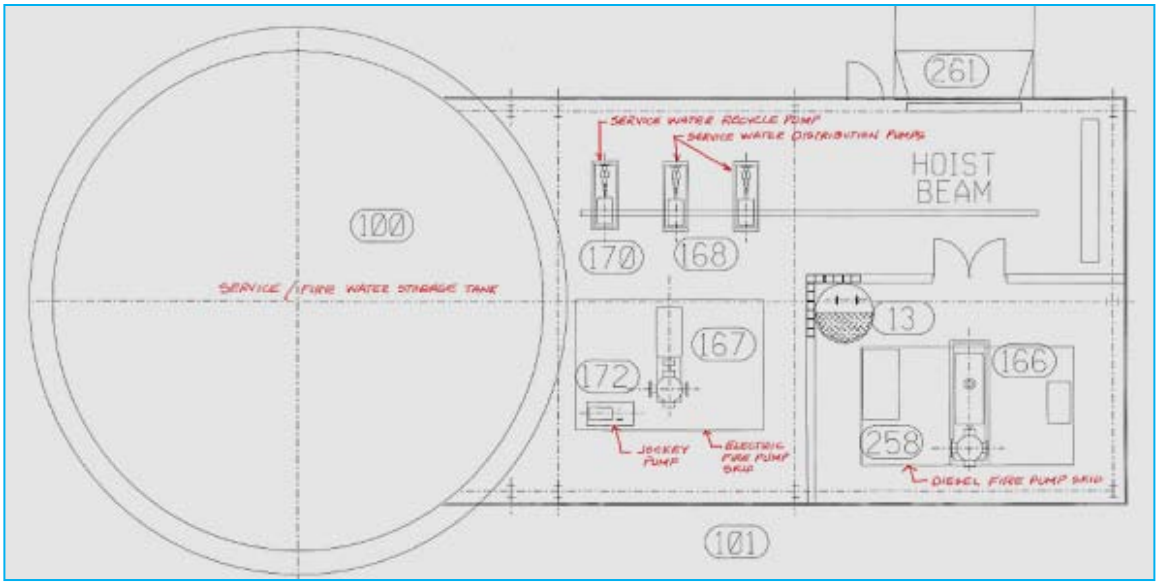
As an "Integrated" EPC Contractor, CH2M HILL co-locates our construction and startup personnel with our engineering and design personnel during the critical preliminary design phase. By reviewing the preliminary design with the entire engineering, construction, and startup teams, ***we identify potential interferences, barriers to construction and startup, as well as potential operability, maintainability and accessibility impacts early in the design process***—at a time when changes can be incorporated with minimal impact. The benefit to the project is a well-thought out design that is integrated with the Construction and Startup Execution Plan. This integration has proven far more successful to the project outcome than projects designed and constructed by separate entities.

Together, we participate in SP-3D Design Model reviews throughout the Project where we will "walk though" the facility model and review equipment placement and maintenance access creating a safe, practical and ergonomic plant.

Boiler Feed Pump Arrangement

Variable Speed Couplings are included in our offer. These variable speed drives will significantly reduce auxiliary power consumption during start up and part load operation and to provide maintenance advantages. Variable speed drives add significant capital cost; however, they add more value to a cycling plant:

- Maintenance Advantage – Variable speed couplings provide a "softer" motor start, minimizing in-rush current during pump starting, thus reducing the potential to damage the pump from high impact starts. Variable speed also significantly reduces wear on the HRSG HP drum level control valves, and feed pump minimum flow valves. This is because the HRSG level control valve can be set at a fixed differential pressure, e.g. 150 psi, allowing the valve components to last much longer. The thrusts and water pressures are greatly reduced after reaching full speed. For fixed speed pumps the differential pressure can be thousands of psi during start-up, causing erosive wear and high forces on valve.



- Efficiency Advantage – This can be evaluated when the value of improved part load (including unfired base load) power and heat rate is assessed over the plant lifetime based on economics and a load profile of the plant, including whether the plant will be dispatched fired or unfired. The trade-off is capital vs. operating cost. At full load, the efficiency loss introduced by the VSH is offset by the savings of reduced throttling loss. However, at reduced loads, the savings become quite significant. If the flow for the unfired case is only 2/3 of the flow of fired case then the pump would realize a power savings per of about 25%. If operating hours are mostly unfired, then the economic impact is very significant.

On previous projects, using the Owner's proforma and economic evaluation factors, we have found the power savings to be valued in the range of ~$1MM for each F-class HRSG; Couple that with pump and valve maintenance savings and improved plant availability and the savings can be worth substantially more.

Improved water treatment systems:

- Reduced well water usage compared to RFP requirements.
- Reduced capacity of required Pretreatment System.
- Reduced complexity.
- Simplified controls.

Improved Water Pump Building

We have joined the water pump building to the service/fire water tank to simplify winter operation.

Other Specific Areas to Address

All areas of the plant will be addressed with respect to orientation, location and access to equipment, components, valves, and instruments including:

- Valves and components that require calibration and/or routine access will be located such that maintenance operations can be performed from platforms or access ways.
- Motorized valves and automatic control valves will typically be located for access on all sides and as a minimum 180 degrees. Where this is impractical, the

item will be discussed in the design review and resolved.

- Valves that require insulation will be insulated with removable blankets so sheathing and insulation will not have to be removed and reinstalled each time access is necessary.
- For removal of Boiler Feed Pumps and motors, we propose locating the pumps outboard from the pipe rack so the pump and motor can be lifted with a mobile crane. All of our equipment specifications, where applicable, address lifting lug locations for equipment to provide safe means of rigging and transfer.
- Medical evacuation plans will be discussed with regard to remote areas on top of the HRSG and the inside of vessels.
- All equipment contracts will require that the individual supplier meet the requirements for noise exposure to the extent that this is practical.
- If desired, special noise enclosures can be furnished around equipment items that have excessive noise signatures on a continuous basis.
- Steam Turbine and Gas Turbine rotor removals will be reviewed as well as generator rotor pulls to ensure that the appropriate access is available.
- Unloading, storage and usage requirements for chemicals such as fuel oil, 19% aqueous ammonia, boiler water treatment chemicals, lubricants, solvents and reagents will be addressed early on in the preliminary design with operations.
- Containment designs will be reviewed as well as removal and disposal of spills of hazardous substances. Plans for containment and disposal of oily waste streams will be reviewed and discussed.
- Electrical hazardous and explosion-classified areas will be reviewed with regards to the appropriate NFPA, NEC, CSA and local code requirements to ensure compliance.
- A fire safety evaluation will be performed in accordance with NFPA 850 and the RFP and appropriate requirements included for detecting, alarming and extinguishing hazards and/or preventing hazards from spreading should they occur.
- All occupied spaces and spaces for storage of combustibles will be reviewed and the appropriate fire protection provisions will be included.

CH2M HILL's Noise Analysis Capabilities

CH2M HILL has a breadth of acoustical resources, including state-of-the-art sound level instrumentation and the latest acoustical modeling software. Key project staff includes a registered professional acoustical, civil and environmental engineer and member of the Institute of Noise Control Engineering. A detailed description of our noise analysis capabililities can be found in Section 11-HSSE of our submittal.

Sound Instrumentation

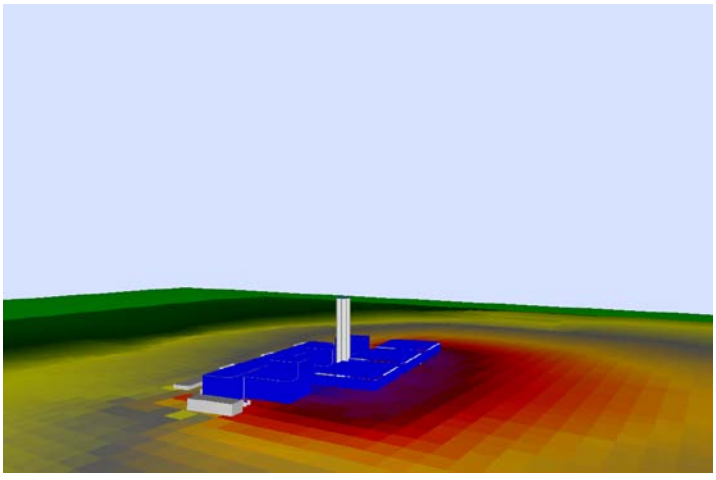
CH2M HILL owns numerous Type I (precision) sound level meters. All are data logging and equipped with optional environmental monitoring kits for unattended continuous measurements. CH2M HILL also has an extensive inventory of portable data logging meteorological equipment to concurrently record wind speed and direction.

Noise Prediction Software

CH2M HILL uses customized spreadsheet models, and also has several CADNA/A software licenses. This software handles industrial facilities, stationary sources, and HVAC equipment. CH2M HILL typically plots noise contours over U.S. Geological Survey mapping or aerial photographs, if they are available.

CADNA/A can include sound absorption coefficients on all surfaces, evaluate the effects of barriers, enclosures, terrain, and include effects of varying ground impedance. Additionally, the program can perform calculations in sub-areas of a large project, allowing the analysis to concentrate on potential problem areas, which shortens the calculation time.

For industrial sources, it is possible to input sound power level, sound reduction index (for radiation from buildings), and attenuation (for silencers) in a single band or frequency spectrum. As with all source types, sound power emission levels can be input directly or on-line using calculations based on known sound pressure and other parameters. Directivity effects can also be included.



Site Logistics and Material Control

Developing and executing an efficient Logistics Plan and Material Control Program has a significant impact on worker productivity and reduces both schedule risk and the confusion and resulting cost of a disorganized approach to construction. As a major task in developing our construction strategy, we have adopted our proven Logistics Plan and Material Control Program to balance the project location, site layout, laydown, the proposed construction schedule, project cost, and the optimum use of craft workers.

Logistics Plan

Equipment and material sourced in the United States will be quoted FCA job site or FCA suppliers' facility.

A formal log will be retained of all shipments and values for lodging against Air and Ocean Cargo Insurance and/or Builders Risk Policy. Where necessary specific insurance certificates will be issued by others and where required by insurance policy, a marine survey will be agreed between the parties and present at vessel loading and/or discharge.

Where the nature of cargo, risk or other project requirements dictate, a certified marine surveyor may be nominated by CH2M HILL to monitor vessel loading and/or unloading. Established procedures and journey management plans will be developed to ensure risk and Health, Safety and Environmental (HSE) requirements are followed.

For equipment arriving from offshore, all customs clearance will be managed by CH2M HILL, obtaining lowest duty rate applicable, in accordance with United States customs valuation laws and regulations. Import documentation for equipment and material imported will be retained for no less than five (5) years as required by United States law.

CH2M HILL export packing standards will be utilized on equipment and material sourced outside of North America.

Project Procurement Logistics will develop a scope of work and inquiry document to be issued to the following freight forwarders and customs brokers:

- Agility Project Logistics
- DHL Global Forwarding & Industrial Projects
- Lynden International
- Panalpina
- Schenker

The scope of work will reflect single point control from receipt of CH2M HILL procured cargo at offshore supplier to delivery job.

For equipment and bulks sourced in North America CH2M HILL will manage the shipment from Supplier to laydown area and site. This will include Supplier visits, attending barge offloading, major crane lifts and other key points in the capital project supply chain.

CH2M HILL has extensive experience and works with only recognized specialists in the field such as:

- Mammoet
- Marino Crane / Hake /Barnhart

- Lockwood Brothers
- Bennet Motor Express
- Bigge Crane & Rigging
- Miller Transfer

Upon award CH2M HILL will develop detailed processes and work instructions for Cargo Importation, Logistics Execution, Transport Management, Materials Staging, Storage and Handling.

CH2M HILL Logistics Coordinator assigned to the project will oversee and execute responsibilities in support of logistics and transport activities. Continuous coordination with construction, expediting, purchasing, subcontracts, Marine, Highway, State, City, Town and Municipal regulatory authorities. Transport and logistics services subcontractors are required to support worker productivity, schedules and project performance.

Temporary Laydown Yard

The designated onsite laydown will not be sufficient for the needs of this project. We intend to utilize an additional twenty-five (25) acres of off-site laydown (provided by Owner within 2.5 miles of the site). We also believe assessment of potential laydown area south of construction site, in proximity of old power plant, be undertaken as an alternative. Laydown areas will be an intuitive grid, labeled and posted for the storage of designated material. We will develop detailed plans and maps early in the project to maintain storage and material handling control.

Combustion Turbine Generator and Steam Turbine Generator Delivery

The Combustion Turbine Generator (CTG), the Steam Turbine Generator (STG) and the heat recovery steam generator (HRSG) suppliers allow us to immediately set the equipment on the permanent foundations in the sequencing described earlier. This "just-in-time" approach minimizes the required storage space and eliminates double handling.

Heavy Haul Plan

CH2M HILL will develop a project-specific heavy haul plan as part of our Project Execution Plan. Rail is not a feasible transport option for equipment that exceed the standard width, height and weight for train operations. With commuter rail operations being the principal rail activity this limits our ability to utilize this mode of transport.

Transport of equipment that is over dimensional and or overweight in nature is very challenging in New York State. Validation of all recommended routings will require formal route surveys and New York State regulators have indicated requirement for a third party engineering review of bridges, roads and structures along the proposed route.

Our strategy is to barge major equipment to a Tilcon operated quarry location in Wappinger's Falls, New York, just north of Bowdoin County Park, which is approximately 30 miles from the site.

We will perform a barge onhire and offhire survey to ensure safety, stability and suitability for the task.

Barge will be a 200 x 48 barge, or similar, outfitted with crane suitable to lift equipment from barge and place on to transporters. Transporters will then move equipment to a specified staging area where

equipment will be lowered on to pedestals, stands or beams.

This staging area is located within an operating facility which imposes restrictions on when transport from this staging area to the site can occur.

During daylight hours we will prepare equipment and tranporters for movement. Movement will not commence until the evening hours, after plant operations cease. We will also operate on weekends, and if necessary holidays, when no plant operations are in play.

Heavy loads will be delivered to a quarry (named), offloaded from barges to transporters to be delivered to the site. Finalization of the offloading means and methods will be included in the plan.

Material Control Program

We maintain a formal computer tracking system for all material received. Our Material Control Program includes:

- Material receipt—overages, shortages and damage (OS&D) inspections and documentation
- An inventory control and accountability system
- Material handling and tracking
- A formal program for assigning and tracking storage in the laydown area onsite (outdoor and closed storage)
- Material and equipment protection
- Storage area preventive maintenance
- Pre-staging material for work packages with appropriate tracking control and accountability
- Tracking through permanent installation of material/equipment in the plant

All onsite and remote storage will be controlled by our Material Control Manager who will be responsible for material receipt, inspection, off-loading and sequenced storage of equipment and material.

Material Receipt

Equipment and materials will be received at a central material receiving area. CH2M HILL receiving personnel, working in conjunction with the appropriate subcontractor when applicable, will receive material and equipment, inspecting for OS&D.

After this is completed, the material shipment is unloaded from the transportation carrier. CH2M HILL, working with our subcontractor when applicable, will accept care, custody, and control. During the receipt inspection, (within a 3-day window for each shipment), each delivery will be "shaken out" to identify and verify shipment completion.

The material will be checked for storage requirements and routed for indoor or outdoor storage. Those materials requiring special protection will be covered or warehoused as required and those items requiring special preventive maintenance requirements will be logged into our equipment maintenance file. Motors and cabinets requiring the energizing of strip heaters in storage will be staged close to power supply areas in the yard.

Conex boxes may be used for items requiring either environmental control or security.

Indoor Storage

Those items requiring controlled storage will be stored under covers, in Conex boxes or in our temporary warehouse. We will establish shelves and storage bins to properly account for and store received inventories. Instrumentation will be received, tagged, and stored in a locked, controlled environment. Indoor storage space as provided by CVEC.

Construction Office Trailers

A series of site construction trailers will be provided to facilitate the various needs of the site team, including a trailer dedicated to site safety orientation of all personnel, a trailer dedicated to the startup team, along with the usual trailers for administration and field supervision personnel.

Craft Parking

Craft parking will be in the area designated by CVEC immediately to the south of the plant. Our manpower analysis, based on our proposed schedule, indicates that a peak of approximately 750 to 800 craft is anticipated. Using a 75% requirement, this translates into a peak need for 550 to 600 parking spaces.

Site Security Plan

CH2M HILL will provide full-time security services for the construction site areas as well as the offsite laydown area 24/7 once construction begins and we begin to receive and store plant materials. We will provide a guard shack with security guard controlling access to both the site and material storage areas.

Items are inventoried, sorted and placed in bins in preparation for pre-staging material for work packages.

Using a card swiping system, we will construct a "Brass Alley" in the proximity of the construction area, where the craft will enter and exit.

Storage areas will be fenced and controlled, as necessary, to store valuable materials and components. Smaller items will be secured in Conex containers/locked storage areas, with access controlled by authorized personnel alone.

Our subcontractors will be required to abide by our site security plan and will also be required to control their materials. Tools and critical components will be secured in locked storage containers or Conex boxes at the end of each shift.

Material and tools can be removed from the site only with an authorized gate pass issued by authorized CH2M HILL personnel. Inventory lists will accompany gate passes.

Construction Plan

Our Construction Execution Plan while based upon our ***successful plans*** used on other combined cycle projects has been ***tailored to meet the Cricket Valley Energy Center project design and site conditions.***

Jobsite Safety

Safety is CH2M HILL's #1 goal. Through an extensive, ongoing accident prevention and general safety program, we strive to provide each employee and project with a workplace free from recognized hazards. Our company has a safety vision, adopting "the zero injury philosophy" which is why we are so well respected by the local building trades.

Planning and Scheduling

In order to support the planned October 1, 2102 site mobilization and start of new construction, CH2M HILL plans to mobilize a skeleton staff to the site, while releasing the demolition subcontractor to begin their work, the end of May 2012. All of the demolition should be completed prior to mobilization of the site grading contractor and start of other on site construction activities. Development of design documentation is required to apply for permit(s) that will be required to build new acceleration and deceleration lanes that will connect the offsite laydown and parking area access road to SR 22.

Area for Laydown, Warehousing, Parking, Preassembly and Staging of Materials

CH2M HILL plans to develop 10 acre piece of property adjacent to and immediately south of the project site proper for parking for personnel assigned to the offsite area and temporary construction facilities, as well as the offsite 25 acre +/- area for laydown, warehousing, preassembly and staging of materials.

Key Dates

Contract Award (assumed) – January 1, 2012

NTP – May 1, 2012

Initial mob for demolition work and development of offsite area – May 31, 2012

Mobilize site and start new construction – October 1, 2012

We will submit required documentation and secure permits for new acceleration/ deceleration lanes at SR 22 for the new access road into the proposed 25 acre offsite laydown and storage area located 2.5 miles from the project site. As soon as practical, after NTP and possibly utilizing the same contractor selected to develop the site for us, we will begin developing the new access road and 25 acre area for laydown, warehousing, pre-assembly and staging of large assembled components. CH2M HILL will utilize the existing roads for access to the offsite area until the tie-in of our temporary access road into SR 22 is completed. While the timely development of this area is critical to the success of new construction at the project site, it appears that there will be adequate space for craft parking and temporary construction facilities immediately to the south of the project proper. Until such time as the 10 acre piece of property can be developed, there should be adequate space on site to allow the demolition work to be completed. There should also be adequate space on site to allow the start of site grading following completion of the demolition work. With a

day shift peak of approximately 550 craft, we will need 3 to 4 of the 10 acres available for parking with the remainder to be used for construction trailers, craft change trailers, various onsite pre-assembly and storage areas.

Locating craft parking immediately adjacent to the project site will allow us to avoid the expense of bussing craft from the offsite area. CH2M HILL will set up card swiping systems at both the onsite and offsite parking areas to monitor and record who is at both sites at all times. For the offsite laydown and storage area, we will assign separate labor crews and construction equipment to receive, unload, store, protect and pre-assemble to the largest extent practical components that will be transported just in time to the point of installation at the project site.

CH2M HILL will strip and stockpile topsoil from the 25 acre offsite area and use it to build temporary berms that will provide some visual protection from houses that are in close proximity to the laydown, parking and work areas. We will immediately seed these berms to provide protection from erosion which may require us to set up a maintenance program to water and properly maintain the berms. Even though this site is temporary (2+ years), CH2M HILL will need a detail of what is necessary to obtain the permits needed to develop the site and then restore it when the work is completed.

Since the offsite area has historically been used for farming, CH2M HILL assumes that ground preparation/stabilization after stripping the topsoil will be necessary in order to provide reasonable support for parking, access roads, material storage as well as fabrication and preassembly of components. We anticipate performing some form of compaction over the entire 25 acres. Following the stripping and compaction process, we will then cover all of the areas to be used for temporary construction and access roads throughout the laydown area with geotextile fabric before placing aggregate recycled from the demolition process supplemented with purchased aggregate to build a stable base suitable for car, truck and crane traffic. We assume that the areas used for actual laydown and storage of materials and equipment will be covered with an appropriate thickness of either recycled or purchased aggregate and combined with dunnage and that this will be adequate for the intended purpose.

Temporary power and phone service required for our warehousing, connecting motor heaters, temporary lighting and welding stations for the parking, laydown and preassembly work needs will need to be brought onto the offsite area. We assume that there is adequate service available immediately adjacent to the site to support these needs. Depending on the availability of phone lines, we will either utilize NEXTEL type hand held phones or hard line phones for communication between the project site and materials control staff.

CH2M HILL will set up an intuitive grid, labeled and posted for the storage of designated materials. We will also set up a temporary warehouse or warehouses using clear span tents or Sprung type structures and utilize connexes as needed for the storage of certain equipment, materials and bulk commodities that have to be protected from the elements. These facilities will need to be in place in advance of the start of delivery of bulk construction materials, process materials and equipment. At the same time, we will develop an area or areas to be used for preassembly and staging of components prior to delivery to the project site.

Due to the limited space available at the plant site, planning and communication to allow just in time material flow will be critical to the success of the project. In addition to our warehouse/materials control manager located at the offsite laydown area, we will assign a full time logistics manager to coordinate the loading, staging and delivery of construction materials, process equipment and modularized components from the offsite area to the project site. Working with both long and short range plans, regularly scheduled meetings between site supervision, procurement and materials control personnel will be held to clearly communicate the needs of the site as well as the capabilities of the warehousing, preassembly and delivery crews. In addition to the on and offsite logistics control, we will utilize our corporate procurement group with various critical vendors to have them store materials and equipment at their facilities to the extent possible as well as closely coordinate shipments for just in time deliveries to the point of installation or temporary storage.

Pre Construction Activities

Upon contract award, expected on or about 1 Jan 2012, key members of our project team will meet to verify the work needed prior to being fully released (NTP) and funded on May 1, 2012. The team will consist of personnel from construction, engineering, procurement, project controls, safety and quality as appropriate. Some of the advanced activities, prior to receipt of the NTP, include but are not limited to the following:

- Site surface investigation and final report
- Site survey and establishment of project controls
- Relocation of existing power lines on site
- Testing for hazardous materials
- General demolition, including the removal, handling and proper disposal of asbestos
- Demolition and/or remediation
- Cleanup and removal of existing non-hazardous piles of debris identified in the Phase 1 study.
- Work associated with obtaining permits for connection of the planned offsite access road including acceleration and deceleration lanes to SR 22.

If demolition and\or remediation of the existing facilities located on the 10 acres to the south of the plant site is required it will be the responsibility of CVEC.

Shortly following the contract execution, our labor relations manager, site construction manager and project superintendent will schedule a meeting with the building trades to bring them up to speed on the project, begin negotiations on

the PLA and set up the process of holding regularly scheduled labor management meetings to keep all union officials informed on the project status, projected manpower needs and to identify and discuss issues before they become problems.

To avoid delays and potential issues with the removal of "bat trees", our plan and schedule rely on the Owner removing all of the subject trees that could adversely impact our work, if not removed before we arrive on site for the initial demolition work.

Once bids for demolition are received and confirmed as to acceptability, a demolition subcontractor will be selected to negotiate final price, schedule and T's & C's. We need to have the demolition subcontract and other necessary support packages ready to award and the necessary permits in hand to allow demolition work to begin as soon as practical after the NTP is received. This should allow the demolition work to be completed before we mobilize to begin site work.

Demolition and Site Development

In conjunction with starting the demolition work, we will contract with a survey company to establish permanent survey controls and clearly identify the boundaries of the wetlands buffer zones as well as any other important items that should be flagged.

Working from north to south across the plant power block, the current plan is for the demolition contractor to remove all above and below grade structures including foundations, underground pipe and ductbank. As the demolition work proceeds, the sub will backfill resulting trenches and holes with suitable selected backfill to grade. With the exception of concrete and masonry materials that will be crushed to a 2 inch minus size and stockpiled on site, all other materials will be removed from the site and properly disposed of. Depending on the quantity available, we will use the crushed materials for temporary aggregate surfacing at both onsite and offsite locations. With exception of any large underground tanks or structures that might interfere with new foundations or underground services, we will consider leaving all existing underground pipe and electrical ductbank in place for removal during construction. During the normal course of construction, we can remove the existing UG pipe, manholes and ductbank as it is encountered and abandon the rest in place. The demolition subs are to price the work both ways so we can decide which way we want to proceed before starting work.

In order to support the start of these early activities on site, we will need to mobilize a skeleton staff to monitor and manage any work on site. This staff may consist of a senior safety person, an environmental specialist (if necessary), a project controls person, project superintendent and a subcontract administrator to provide proper safety orientation and to monitor the ongoing work.

Once the demolition process has been completed and the site is cleaned up, we will begin the new construction phase of the project. We will start with clearing and grubbing the site to include the 10 acres south of the site proper, importing approximately 60,000 cubic yards of offsite borrow material to raise the elevation of the site approximately 4 feet while bath tubbing the areas of the CTG's and HRSG's. We will build the storm water pretreatment and management basins, and develop the

temporary construction areas for onsite parking, trailers and laydown.

If the Owner's subsurface investigation is insufficient for our needs to establish a reliable profile of the bedrock, we will take additional borings in selected locations to clearly establish the elevations of bedrock in areas of new construction and the extent of blasting required if any. If blasting is required for foundation, underground pipe and electrical services, we will engage the services of a blasting expert to obtain the necessary permits before beginning work. Based on preliminary borings, our engineers are evaluating where we might hit rock, how much and what we can do to stay of the rock if practical. This could mean raising the site more than 4 feet or moving some of the services above ground.

Project Site Temporary Construction Facilities

Our plan assumes that the existing services (electrical, water and phone service), available on site will be adequate to support all of our temporary construction needs.

With the 10 acre parcel of land immediately to the south of the power block area, there is enough room on the project site for craft parking, construction facilities and some limited space for storage and staging materials.

Our current plan calls for us to perform the majority of our pre-assembly work either in the offsite area or to have it done to the extent practical in the supplier's shop taking into consideration cost, schedule and shipping restraints. Some potential items that could be pre-assembled offsite and delivered in large sections include the steam turbine exhaust duct, stack sections, utility rack framing loaded with pipe, cable tray, conduit, ductwork, ACC components and the like. Pre-assembled oversize and/or overweight modules will have to be delivered to the site by a specialty heavy haul contractor from the point of assembly to the point of installation. We utilize our corporate logistics manager and heavy haul contractor to obtain the permits required to allow them to move the very heavy and/or oversized loads over the highway to the site. Our current plan is to have the very heavy loads for the CTG's, HRSG's, GSU's and STG's delivered to the point of installation and set off of the transporter on to the foundation. Depending on the timing/frequency of delivery of the HRSG modules from the supplier as well as the availability of onsite laydown in the 10 acre area, we may have to stage some of them either onsite or at the offsite area and sequence the delivery to support our ability to handle and set them at the site.

Facility Construction

New construction activities will begin with the site development, clearing\grubbing, building storm water pretreatment and management basins while bathtubbing the power block area. Special care will have to be taken to stay out of the wetlands buffer zones, which will be clearly identified before work begins on site. As currently scheduled, it appears that the majority of the sitework can be completed by mid-December or before the worst of the winter.

We will layout and excavate underground pipe and electrical system corridors. As stated previously, depending on the elevation of bedrock, we may have to drill and shoot the corridors for the underground systems, then excavate and

process the rock on site. Depending on depth of foundations, we may have to take the same approach for them as well. Work on underground pipe and electrical service is scheduled to start in early January, 2013. While the work can progress during the winter, we will to take some precautions with temporary heating and weather protection.

Significant underground installation of piping and electrical commodities, shown here at Silverhawk, helped reduce peak manpower loading.

Construction of foundations will start with Unit 1 (the northern most unit) and progress to 2 and then 3 (southern most unit). There should be enough room on site to allow materials for foundation construction to be delivered and stored on site until it is needed. Foundations for the SCR skids on the south side of each of the HRSG's should be left out until the HRSG modules and drums are set. Foundations for the boiler feed pumps to the north of each HRSG as well as the auxiliary boiler foundations should also be delayed until the HRSG utility rack modules can be positioned and set in place. Foundation construction is scheduled to begin in mid-January, 2013 and will require temporary heat, weather protection and the concrete batch plant will have to be able to accommodate the cold weather while delivering concrete that meets the specifications.

Blast walls for the GSU's should be designed to be precast. This will take labor out of the field and will allow shorter durations for installation of walls.

Building Construction

As currently scheduled, erection of the STG/CTG building steel from north to south follows rough setting the CTG's on their foundations, which is to be completed well prior to delivery and erection of the STG's. The CTG's will be delivered to the foundations and will be rough set using gantry cranes by the heavy hauler. Because of this sequence, there will be periods of time that work on each of the CTG's will have to be delayed at least during the day due to safety concerns while the building framing is erected over the turbines. The steam turbine areas of the building will have to be designed to allow installation of the turbines and generators through the east wall utilizing some form of a lift system arrangement by our heavy haul subcontractor. Our current plan requires that only some of the rack steel but most of the turbine building siding and roofing be erected during the winter months. If we are able to modularize the racks we will need some temporary shelters and heat to build the racks and then we should be able to deliver and set them without much additional impact. For the siding and roofing, we will only be able to work when the weather will permit.

Two to three months of erection of each CTG will occur during the winter of 2013–

2014. While it is likely that the turbine building framing will be complete by then, it is unlikely that we will have the building closed in to the point it can retain any significant heat. Because of this, we will plan on using temporary shelters, wind breaks and localized heat to support this work.

Due to the late delivery of the STG's, the turbine building is expected to be closed in to the extent we can erect the STG's in a controlled environment.

HRSG support steel with panels, modules, access towers, drums and large bore pipe will be rough set before the building steel can be completed and closed in. Shortly after the modules are up and drums set, the steel erection can get underway but roofing cannot be installed until all significant lifts have been completed. At some point in the HRSG erection, hanging building steel will become a safety concern to those working underneath on the boiler pipe and welding. At this time, it will be safer and possibly as productive to roll the affected worker to nights until the steel erection can progress to the point where safety is no longer a concern.

Working from the south side of HRSG Unit 1 with a properly sized crane and support equipment, we will erect the support steel and casing in preparation for delivery of the modules. We anticipate receiving the HRSG support steel and casing at the offsite laydown area. We will preassemble the pieces into larger components to the extent practical and stage them on trailers (unless we need a special use transporter in which case we will load the materials for just in time delivery) in the proper sequence for delivery to the point of installation at the site. Prior to the start of this work and in preparation for handling and setting the very heavy tube bundles, we will prepare the ground on the south side of each of the HRSG's and install crane mats as necessary for the large cranes and heavy loads. Our current schedule shows approximately one month delay from the start of HRSG 1, to HRSG 2 and then to HRSG 3. Depending on how the installation progresses, we plan to erect the steel and casing for each of the units with the same crane. As soon as we have reliable information on the size and weights of the HRSG components (we are currently assuming the HRSG's will be two modules wide), our heavy lift supervisor will work with a crane company and/or heavy hauler to select the proper capacity cranes not only the primary lift and support cranes but all cranes on site. Prior to the delivery of HRSG modules, we will set up both the primary and secondary lift cranes on the south side of each HRSG. Modules will be delivered to the site under our hook in a pre-determined sequence by the heavy haul carrier. The months of December, 2013, January and February, 2014 hit just about in the middle of the erection period for all 3 HRSG's. This will require some temporary enclosures, wind breaks and heat to allow this work to progress.

As currently scheduled, the start of steel erection for each of the ACC's follows the start of each of the HRSG's by about 4 months. In addition to the 25 acres offsite and a portion of the onsite 10 acres that may be available at the time, there is also a strip of property approximately 80 feet wide and 650 feet long (1 acre +/-) to the west of ACC units 1 and 2 and about .75acre to the south of unit 3 CTG that will be used for laydown and crane placement. For steel erection, we anticipate utilizing 2 cranes with support equipment such as forklifts and manlifts to

erect the unit 1 support steel and fan decks working from the e-w column line, one crane working to the north and one to the south. We will use a larger crane such as a 888 or equivalent with a luffing jib to set the ACC components once the steel and deck have been completed. An alternative to multiple large track cranes to consider as we obtain more detailed ACC information and our construction plan is refined, is the use of tower cranes set up between the ACC's supplemented with support cranes and other equipment. There is a 52 ton tower crane made that appears to have more than enough capacity to cover an entire ACC. Without knowing the cost or having any more information on this piece of equipment, it is simply an alternate to consider.

Without the steam exhaust ducts in place, there appears to be adequate room for crane access on all sides of units 1 & 2. Access to all 4 sides of unit 3 appears somewhat limited and will require more temporary ground preparation and possibly crane mats. Because there is only a one month stagger between the start of each of the 3 ACC's, we will need separate cranes and support equipment to service each unit. Erection of Unit 1 ACC runs through December, 2013, January and February, 2014 and that part of the work is on the winter calendar. Units 2 & 3 start in the winter months but the majority of work on these occurs outside the winter. Regardless, all work that occurs during December through February will require weather protection and temporary heat.

This plan assumes we will leave all exhaust duct, foundations and duct support steel out until last minute installation. All duct should be pre-assembled into the largest load that can be safely delivered and erected after the HRSG's, stacks and ACC's are in place.

Wherever practical, we need to evaluate designing utility racks to allow modular construction offsite either by selected vendors, at our offsite laydown and storage area or possibly somewhere on the 10 acre parcel as available. At this time, it appears that we may be able to modularize the finger racks to the north of each HRSG and to the ACC's with pipe, valves, hangers, insulation and cable tray installed. Even if we have to perform this work ourselves and transport the modules to the point of installation, it will move work away from the power block area and will be safer by allowing the work to be done on the ground instead of in the air a piece at a time. These modules would then be transported to the site by our heavy haul contractor and set along the north sides of each HRSG and then to each of the ACC's as required to support the overall project schedule. It may also be practical to modularize sections of the main rack that runs north and south across the CTG exhaust ducts and ties into the HRSG finger racks. The practicality of modularizing each of the various sections of utility rack will be thoroughly evaluated during the initial design and planning phase of the project before we firmly commit to that approach.

We will have our logistics director involved with planning and costing the movement of modularized and/or oversized loads from the offsite pre-assembly and staging area to the site in order to make sure we clearly understand the limitations and requirements before we begin work.

Large bore pipe will be spooled, fabricated and delivered in as large components as is

reasonable. Where there are clean well defined terminal points and well identified routing, we will also consider having small bore pipe shop fabricated; however, where we have very congested areas or ill defined terminal points, it will be more cost effective to field fabricate the lines in those areas so as to avoid changes, modifications and/or delays would not be unexpected. Our latest schedule shows the above ground pipe and electrical work occurring through the winter of 2013 -2014. While a good portion of this work is inside the turbine and HRSG buildings, a lot of it will be outside. While modularizing the racks with pipe to the extent practical will allow us to work at ground level, we will still have to provide wind breaks and temporary shelters with local heat, all of which does not make for productive work.

The current manpower graph shows a peak of slightly over 800 people for 2 months. Overall, there is a seven month period where the manpower averages approximately 700 people on site. In order to try and limit the number of people on site at any one time to 550, we will need to run a night shift with approximately 150 craft for at least seven months (January thru July, 2014). Working a second shift will require additional supervisory staff, support services, lighting and the like. Some of the work that will be available and can be safely executed during this shift include fitting and welding HRSG's pipe and components, fitting and welding large bore pipe, fabricating and installing small bore pipe systems and pulling and terminating cable.

System Checkout, Startup and Testing

Our startup and commissioning manager has provided input to our preliminary proposal schedule and if we are selected, he and certain members of his team will be very involved with the development of the final plan and schedule.

Whether it is a proposal schedule or final project schedule, we always look for input from all groups responsible for the execution of the project including startup so that at the end of the process we have a truly integrated schedule from award and start of engineering through procurement, construction and commissioning.

Our startup people provide the guidance needed so that from the start, we are working on the correct systems in the proper sequence to support the logical startup and commissioning of the plant. While construction initially focuses on the installation of bulk commodities, there comes a time when that focus switches to completing systems as scheduled to allow the checkout and startup to proceed in a logical sequence.

Startup Program

We will tailor our proven Power Project Startup Program to the meet the requirements of the Cricket Valley Energy Center Project. Our program provides an overall guideline for all startup activities beginning with the establishment system turnover boundaries and ending with plant turnover to CVEC. The major elements of our comprehensive startup program are:

- Systems Turnover (Construction to Startup, Startup to CVEC)
- Pre-Commissioning
- Commissioning
- Operator Training
- Performance Testing

CH2M HILL will submit a Project Specific Startup Program Execution Plan to CVEC that will detail the processes and procedures to be used to satisfy all of the requirements of the startup program.

Systems Turnover

The CH2M HILL systems turnover program, which starts during the early phases of the project, includes the following major components:

1. Development of a system turnover breakdown.
2. Inclusion of the system turnover activities as integral part of the project master schedule.
3. Detail development and scoping of the system turnover packages.
4. Management of the systems turnover Process.

Systems Turnover Breakdown

The CH2M HILL systems turnover program begins early in the developmental phase of a project with identification of the turnover packages that will be required based upon the preliminary P&IDs, Electrical one-line drawings and equipment list.

The systems turnover breakdown list will be reviewed with the Project Manager, Engineering Manager and Construction Manager for approval.

Systems Turnover Schedule Activities

After approval of the initial systems turnover breakdown the Startup Manager will work with the Project Controls team to include all systems turnover activities into the project master schedule. These activities will include the following:

- Issue turnover package to construction
- Construction completion/walkdown
- System turnover to startup
- Startup completion/walkdown
- System turnover package issued to CVEC

Turnover Package Development

As engineering documents (P&IDs, Electrical one-lines and engineered lists) are "Issued for Construction", the startup team will scope each document using the approved systems turnover breakdown. The engineered lists will be scoped and

combined in a consolidated database for tracking and report printing.

Upon the completion of scoping of all of the drawings and required engineering lists, the "shell" of each turnover package will be assembled.

Each Turnover Package will include the following sections:

- Section 1 – Package scope/drawings
- Section 2 – Signoffs
- Section 3 - Mechanical
- Section 4 – Electrical
- Section 5 – Instrumentation & controls
- Section 6 – Vendor information
- Section 7 – Package exceptions list

Sections for mechanical, electrical and instrumentation and controls will contain a matrix for each of the engineered lists (equipment, line, specialty item, valve, instrument, cable, loop, etc.) detailing the construction, pre-commissioning and commissioning forms that will be required for each component, as well as the forms that will be required for the system as a whole. The matrices will be used as the checklists to ensure that the proper construction, pre-commissioning and commissioning activities have been completed and properly documented up prior to final turnover.

A "sample" turnover package will be submitted to CVEC for approval early in the system turnover development process.

Systems Turnover Process

Using the assembled system turnover packages, the CH2M HILL Startup Team will manage the flow of the turnover systems. This includes the following:

- Issue turnover package to construction
- Construction completion
- System turnover to startup
- Startup/commissioning completion
- System turnover package issued to CVEC

Issue Turnover Package to Construction

After approval of the system turnover breakdown and initial development of the system turnover packages, the turnover packages will be transmitted to the construction team for completion of work and inclusion of all construction testing activities required by the packages.

During the construction process the construction and startup teams will work together to ensure system turnover packages are being properly completed and updated.

Construction Completion

Using the turnover packages, the Construction Manager and Construction Superintendents will, during the normal course of completing construction, complete the construction data sheets and test reports contained in the turnover packages in accordance with the requirements of the project and matrices included in the turnover packages.

Construction Testing will be conducted in accordance with project specific procedures jointly developed by Engineering, the Construction Superintendent, and the Startup Manager, based upon CH2M HILL Power Projects Construction QA/QC testing procedures and the turnover package matrices. The responsible Construction Superintendent will add the approved inspection forms to the

appropriate turnover package and document completion in the signoff section of the turnover package.

Approximately two weeks prior to the scheduled construction completion date, startup and construction will perform an informal walk of the system and generate a work list of items requiring completion prior to turning the system over to startup.

When a turnover package is completed by construction and signed-off by the appropriate Construction Superintendents, startup will be notified that the system is ready for a construction completion walkdown. Any items not completed in the turnover package are to be added to the system punchlist by construction personnel.

System Turnover to Startup

After notification of construction completion, a walkdown will be held to confirm construction completion and inclusion of all required documentation in the turnover package. Any incomplete items will be documented on the system punchlist.

Once the system has achieved the level of construction completion required to commence the pre-commissioning/ commissioning process, the turnover package will be formally transmitted from construction to startup. After acceptance by startup, the system will be under control of startup and pre-commissioning and commissioning activities will commence.

Startup Completion

After turnover of the system(s) to startup, all necessary pre-commissioning, commissioning, testing and initial operation of systems will be administered and directed by the startup organization.

The purpose of component/system startup activities is to initially inspect and test systems or selected components in an orderly and controlled manner to prove safe and satisfactory operation and performance.

All pre-commissioning, commissioning and testing of systems will require support from the plant operations staff, as directed by the startup team.

When a system turnover package is "ready for operation" and signed-off by the appropriate startup personnel, CVEC will be notified the system is ready for a walkdown.

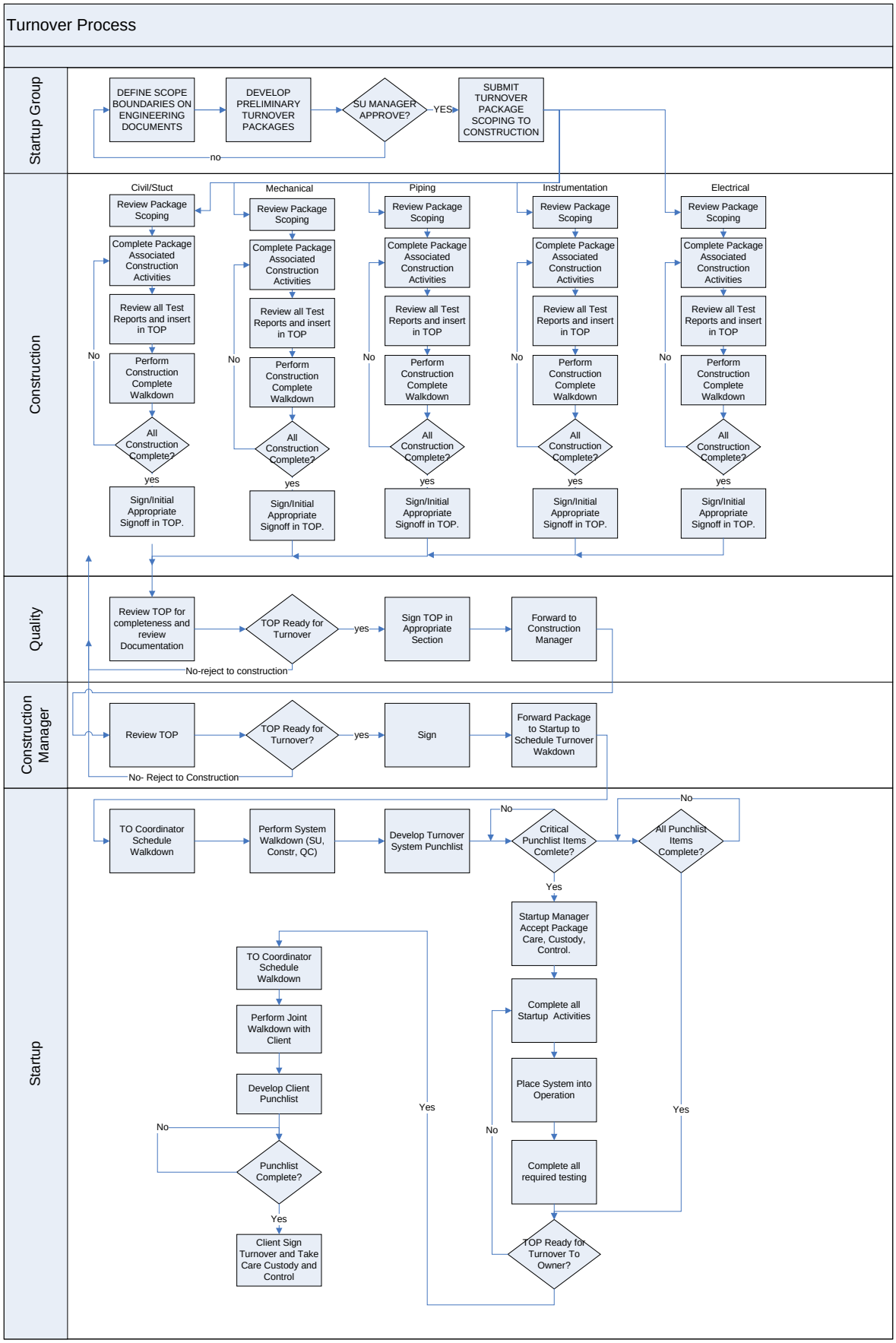
Turnover System Issued to CVEC

After notification of startup completion, a joint-walkdown will be held between CH2M HILL and the CVEC Team to confirm the system is "ready for operation". Any incomplete items will be documented on the system punchlist, identified as critical or minor.

The systems turnover package punchlist, will be reviewed, administered, and completed in accordance with the EPC contract.

Once the system has achieved "ready for operation" completion, the system turnover package will be formally transmitted to CVEC for approval.

CVEC will operate the system, under the direction of CH2M HILL Startup Team, to support the completion of startup, initial plant operation, and testing in accordance with the project schedule and contract. At substantial completion care, custody and control of all systems will be transferred to CVEC.



Pre-Commissioning

During the early part of the construction phase of the project, the Startup Team will develop a project pre-commissioning plan. The pre-commissioning plan will detail the components/system pre-commissioning activities and assign a responsible party to the activities.

Pre-commissioning will commence once a system turnover package has been accepted by startup. Pre-commissioning includes the tasks, activities or tests performed on a static (non-operating) component or system to ensure readiness of equipment/systems for system commissioning and tuning. It is expected that the Owner Supplied Equipment Vendors will provide adequate technical direction/assistance to properly pre-commission their scope of supply.

Typical Pre-Commissioning activities include, but are not limited to, the following:

- Physical inspections/verifications
- Electrical checkout
  - Megger/Hi-pot
  - Relay setting
  - Wire checking
  - Cold functional testing
  - Breaker setting and inspection
  - Ground testing
- Mechanical checkout
  - Equipment alignments (Cold/pipe stress)
  - Hydrostatic/pressure testing
  - Initial safety valve setting
  - Lube oil flushes (CTG, STG, BFP)
  - Equipment lubrication
- Instrumentation checkout
  - Instrument inspection and specification verification
  - Initial calibration
  - Point-to-point checks
  - Bench tests as required
  - Initial control devices setup
- Control checkout
  - Factory acceptance test
  - Grounding checks
  - Initial power up
  - Communication checks
- System static flushing
  - Fuel gas system flushing
  - Liquid Fuel Pipe flushing/cleaning
  - HRSG chemical cleaning/boil out
  - Steam pipe hydrolyzing
  - Others as required

The responsible System Startup Engineer will ensure that all required pre-commissioning documentation is included in the applicable systems turnover package.

Upon completion of all required pre-commissioning activities, a system/component will be released by the responsible Startup Engineer to begin commissioning. After completion of all required pre-commissioning the system, live electrical energy may be introduced as required to properly commission the system.

Commissioning

Upon completion of required system/component pre-commissioning, the Startup Team will perform the required commissioning. The commissioning process is comprised of two major components: system commissioning and integrated tuning. Commissioning Procedures will be developed for each turnover system and submitted to CVEC prior to execution of the specific system commissioning.

It is expected that the owner supplied equipment vendors will provide adequate technical direction/assistance to properly commission and test their scope of supply.

Typical Commissioning activities include the following:

- Electrical
  - Initial backfeed "Energization"
  - Auto-transfer testing
  - Motor run-ins
  - Phasing checks
  - Emergency backup systems testing
  - System response verification
  - Utility testing as required
- Mechanical
  - Initial equipment operation and adjustment
  - Vibration monitoring
  - Fan blade pitch adjustment
  - System final flushing
  - Chemical/inhibitor doping
  - Individual component validation and testing
- Instrumentation and control
  - Function loop checks
  - System/component tuning
  - System response
  - Alarm verification
  - Trip logic verification
  - Transfer logic verification
- System
  - Steam system cleaning (Steam blow)
  - Condenser cleaning
  - Demineralized water system tuning
  - System/component initial tuning

The responsible System Startup Engineer will ensure that all required commissioning documentation is included in the applicable systems turnover package.

Upon completion of all required system commissioning activities a system will be safely operated to support integrated plant tuning and operation.

At the point when sufficient systems are "ready for operation" sufficient to permit the initial operation of a CTG ("First Fire") integrated plant tuning will begin. The period of integrated plant tuning will cover all activities from combustion turbine first fire until the plant is ready for the required performance testing.

The integrated plant tuning activities include the following:

- CTG/HRSG (OSE direction and assistance required)
  - CTG first fire and initial sync
  - CTG Tuning (power and emissions)
    - Gas Fuel Tuning
    - Liquid Fuel Tuning
  - HRSG tuning
  - Steam turbine load testing
  - Steam system tuning
- Condenser system tuning (if required)
- Feedwater system tuning

Operator Training

It is CH2M HILL's goal that CVEC's experienced plant operations personnel receive necessary training in order to support operation of the Cricket Valley Energy Center plant in a safe, reliable and efficient manner. Classic classroom training is only a part of the overall training package.

CH2M HILL will coordinate the overall operator training program for the Cricket Valley Energy Center Plant. This training program will include specific training provided CH2M HILL and the owner supplied equipment vendors.

The training program will be broken down into the following major segments:

- Onsite Plant O&M Training
  - BOP and Integrated Plant O&M
  - Vendor Provided Training
- On-the-job training

Onsite Plant O&M Training

CH2M HILL will coordinate an onsite training program that will include both equipment vendor training and CH2M HILL provided systems O&M training.

The onsite training program will consist of 20 consecutive working days of instruction and will be developed for up to 20 students. The course will be instructed at an adequate location at the Facility, to allow for proper interactive field walkdowns.

Onsite Vendor Training

Vendor Training will include the following major components:

- Gas Turbine and Auxiliaries (Provided by Owner)
- Heat Recovery Steam Generator and Auxiliaries (Provided by Owner)
- Steam Turbine Generator and Auxiliaries (Provided by Owner)
- Continuous Emissions Monitoring System
- Gas Compressors
- Plant Control System (PCS)
- Auxiliary Boiler
- Others as mutually decided by CH2M HILL and CVEC

BOP and Integrated Plant O&M Training

CH2M HILL will develop a set of 'plant specific' training manuals for the BOP plant systems and equipment at the Cricket Valley Energy Center. Each section will be of consistent technical detail and depth, written at a level that is easy to understand and effectively conveys the specific operation and preventive maintenance of the newly installed equipment.

There will be a specific training document developed for each Balance of Plant system. All of the training manuals will be combined into a complete, multi-volume training manual, suitable for training or as a plant reference.

The system documents typically will be broken down as follows:

1.0 System Overview

2.0 Major Components Description

3.0 Controls and Operations

4.0 Pre-Operational Checks

5.0 Operating Instructions/Procedures

6.0 Alarm Responses

7.0 Maintenance Considerations

During development of the Training Manuals, CH2M HILL will submit drafts (Rev A) of each document to CVEC for review. The intent of the review cycle is to allow CVEC to provide comments, approve the information presented in the documents, and to offer any changes to the documents before final printing. After receiving the comments, we will produce Rev. B of each document and assemble them into applicable volumes for use as the training manual.

CH2M HILL will provide a minimum of 2 weeks of onsite classroom instruction to cover the site specific BOP and Integrated Plant Operations and Maintenance course.

The Training Program will consist of a combination of classroom instruction, complimented by plant walk downs. The Integrated Operations Training Program will utilize the site-verified SDOI's to train the operator on how the plant will actually operate. This portion will include sections on both routine operations (startup, shutdown, etc.) and emergency operator actions.

The material developed by CH2M HILL will be presented by a qualified Instructor, experienced in power plant, gas turbines, and BOP systems and equipment. The Instructor will utilize various training aids; including slide-show presentations, overhead projectors, VHS videos, and digital photographs of plant equipment.

Based on previous experience in completing programs such as this, we will remain flexible in scheduling the training program. The training program will be scheduled to coordinate with CVEC's needs, hiring schedules, vendor training, and commissioning activities.

Specific training schedules and agendas will be presented to CVEC as the training commencement date draws closer and more information is gained on the development of the training manual. We suggest a formal meeting be held with CVEC to cover any concerns, ideas, or other specific preferences you may have. We suggest this meeting be held onsite at the end of the project's engineering phase.

We will provide testing both prior to the course instruction and at the completion of training blocks and sessions. The test results will be made available to CVEC upon the completion of the course.

We will provide up to 20 printed copies of each Training Manual and Plant Drawing Book containing black and white copies of all plant P&IDs, Electrical One-Line Diagrams, and other applicable vendor skid drawings.

Upon completion of the project, CH2M HILL will forward all developed material to CVEC in electronic format on a compact disc (CD). All developed text will be developed using Microsoft® Word Software. We will update the manuals to Rev. 0 after training to incorporate any changes to the manual that were identified during the actual training process. All training aids (transparencies, drawings, handouts, etc.) used in the class will also be supplied to the Owner. Typically, these are left at the site after instruction.

Hands-On Training

Throughout the Startup Program operation of the permanent plant equipment will require support from the Plant Operations staff. The operations staff will begin operating the plant, as required by the

respective Startup Engineers. This initial operation will provide opportunity for plant operators to become more familiar with the plant.

CH2M HILL will provide hands-on operator training during the startup phase of the project. The hands on training will familiarize the CVEC operation staff with the proper methods of startup, normal operations, shutdown and alarm response.

Electrical, Mechanical and Instrument pre-commissioning and commissioning will be performed by the CH2M HILL Startup Engineers, but will be assisted by both the Plant Operations Staff and Construction craft. While supporting startup as requested, operations personnel will continue to report to their respective supervisory personnel.

It is recognized that situations may arise where quick action by startup or operations personnel is required for personnel safety or protection of equipment. Although startup will have jurisdictional control of a system, this in no way restricts or precludes operating personnel from taking the necessary action when such a situation arises.

Performance Testing

During the course of the Startup and Commissioning Program, CH2M HILL will perform the required performance tests for the Cricket Valley Energy Center Project. Some of these tests will require Owner Supplied Equipment Vendor technical direction and support.

CH2M HILL shall administer the following performance tests:

- One continuous 8-hour Net Electrical Output Test and Net Heat Rate Test at guarantee conditions.
- Noise Testing according to MADEP Air Permit Requirements
- Air Emissions Testing according to MADEP Air Permit Requirements
- 5 – Day Continuous Operation Reliability Test
- CEMS Certification as required by EPA and MADEP Standards

Demonstration Testing

CH2M HILL shall administer the following demonstration tests, according to the EPC Contract:

- Minimum Steam Generation Test
- Minimum Turndown Tests
  - Net Electrical Output
  - Net Heat Rate
  - CTG Net Electrical Output
  - CTG Net Heat Rate
- Water Treatment Capacity Test (If Required)

Final Documentation

At this time, the Final Documentation is prepared for turnover to CVEC. This is typically in the form of the "Job Books"; Spare Parts, Installation Manuals; O&M Manuals; Plant Procedures and Turnover Packages.

This documentation will be in electronic and/or hard copy and include the Final Record Drawings for the Project.

Warranty

The procedures defining the administration of Warranties for CH2M HILL—furnished equipment and materials for the Cricket Valley Energy Center are defined in detail in the EPC Contract as agreed to between CVEC and CH2M HILL. Our warranties will be administrated in accordance with these provisions.

CH2M HILL will assign a ***Warranty Coordinator*** to handle warranty issues after our construction forces have demobilized from the site. In the event of a warranty claim, CVEC will be able to contact the Warranty Coordinator (WC) 24/7/365. In case the WC does not answer, an alternative contact will be listed to ensure a prompt response. All pertinent contact information will be provided to CVEC. Typically, CH2M HILL will reply and respond in person, onsite immediately if necessary, for emergency conditions but in no case greater than 48 hours after notification. Response will be within 72 hours for non-emergency conditions. Foremost in all decisions is personnel safety.

It should be recognized that warranty claims need to be prioritized from serious (plant down) to minor repairs. CH2M HILL will maintain a comprehensive Warranty Claim Log. The Warranty Claim Log will contain the following information:

- Claim number
- Date returned to CVEC with disposition
- Status of claim (accept/reject—with reasons)
- Date repaired
- Date returned to service
- Labor hours expended to perform repair/replacement (if applicable)
- Names of individuals who participated in repair work