NV5

Certified Verification Agent

1. CVA Process Description - General 30CFR - 585 & 30CFR-250 Requirements

As CVA, NV5 must assess project management, design, and fabrication and installation in accordance with the requirements of US 30CFR-250.909-918 and 30CFR-585.705-714 requirements. 30CFR - 585 delegates the authority to regulate activities that produce or support production, transportation or transmission of energy from sources other than oil or gas on the outer continental shelf to the Bureau of Ocean Energy Management (BOEM). Section 705 of this CFR details that a Certified Verification Agent must be used to certify the Facility Design Report, the Fabrication and Installation Report, and the Project Modification and Repairs Report.

The CVA must be used to:

- Ensure that facilities are designed, fabricated and installed in conformance with accepted engineering practices and the facility design report and Fabrication and Installation Report
- Ensure that repairs and major modifications are completed in conformance with accepted engineering practices
- Provide BOEM immediate reports of all incidences that affect design, fabrication and installation of the project and its components

CVA Project Management:
Project management activities will consist in the planning and organization of schedules, labor, cost control, quality assurance and identification of potential variations in the scope of work.

The following services will be undertaken:

- Preparation of a Project Execution Plan comprising all phases of the Project, including Design Review, Procurement Surveillance and Installation Surveillance. The Plan will indicate the necessary resources, tools, interfaces, and the associated QHSE Management procedures for the execution of the work
- Preparation and submittal of the CVA Nomination Package (Design, Fabrication and Installation) based on the Project Execution Plan
- Management of work progress, through the execution of Progress Meetings
- Interface Management with our clients, third party contractors and BSEE

CVA Facility Design Review:

NV5, as a chosen CVA, will use expert engineering judgment to conduct an independent assessment of the facility design and will certify to BOEM that the reviewed documents show a design that will withstand the environmental and functional load conditions for the intended service life of the project. The CVA design review stage consists of design documentation review only. Responsibility of the CVA is limited to the checking that the reviewed documents comply with applicable requirements and guidelines at the time the review takes place.

This independent assessment will include:

- Planning criteria
- Operational requirements
- Environmental loading data
- Load determinations
- Stress analyses
- Material designations
- Soil and foundation conditions
- Other pertinent parameters of the proposed design

Floating facilities will be reviewed for requirements of the U.S. Coast Guard for structural integrity and stability. Foundations, foundation piling and templates, anchoring systems, and mooring or tethering systems will also be considered.

In order to assure quality and performance of the Design Review Process, we recommend the use of our proprietary platform, INSITE, for the process.

INSITE is a scalable agnostic platform designed to provide a single source of truth for your entire organization. INSITE lets you transform your use of geospatial data through a simple cloud-based, universal platform that fuses your systems of engagement and operations to produce a system of understanding.

Increase Flexibility & Efficiency

- Centralize private, public, and third-party geospatial data in the cloud
- Business intelligence through real-time geospatial analytics
- Integrate with enterprise resource and asset management systems

Empower Users

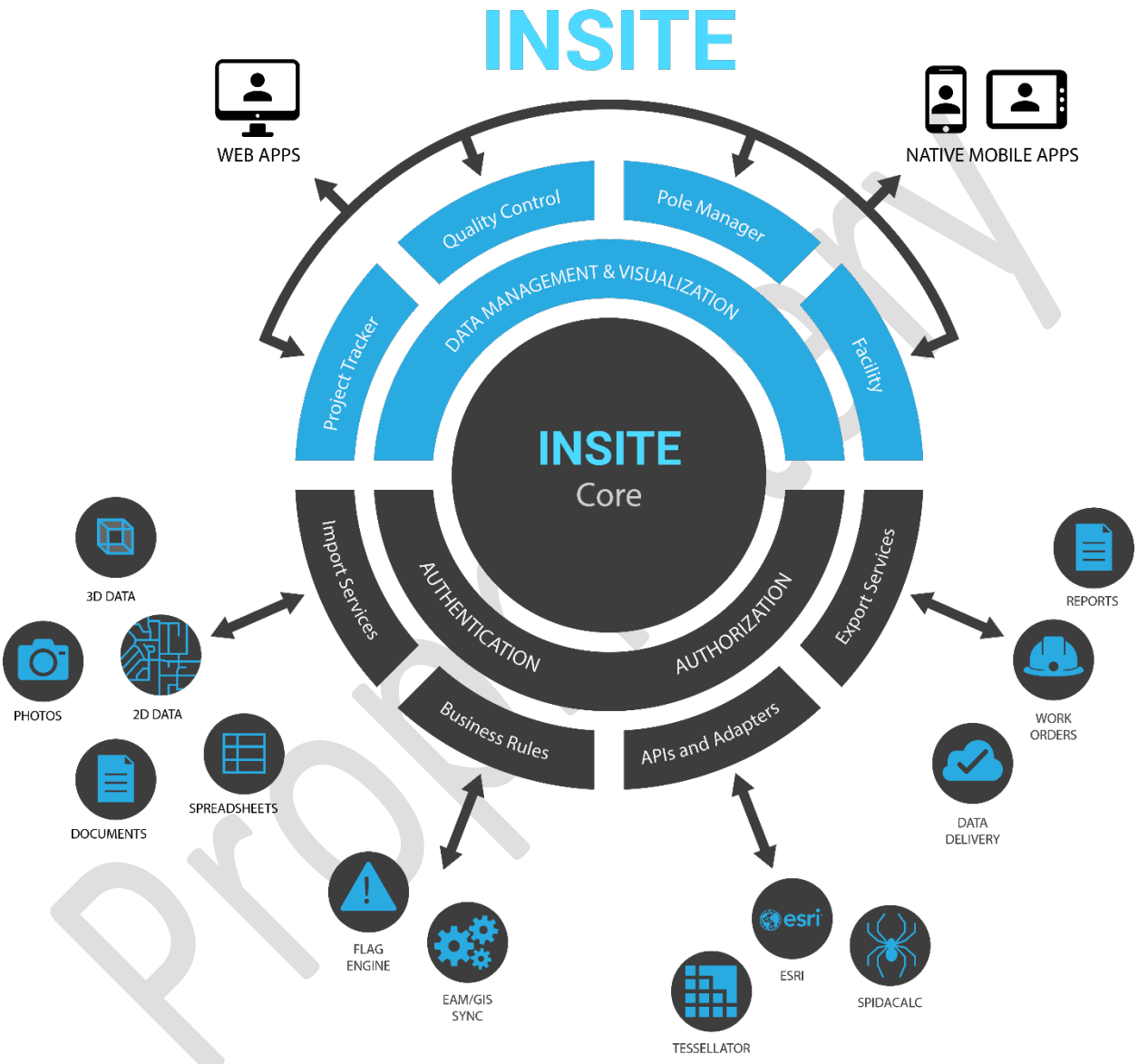
- Simple User Experience = Data Engagement
- Instant access for the entire workforce
- Enhance Data Comprehension
- Collaboration (connecting people through the data)
- Role-based privileges

Drive Down the Cost of Data Management

- Real-time Storage Size Management
- Time-saving Functionality
- Reduce software deployment and maintenance costs with web apps
- Cut hard drive and shipping costs

NV5 will also utilize Newforma as the official document management system. The utilization of this system will collect all relevant project date in a single space accessible to approved project stakeholders. Newforma is a secure, password protected document management system that can be accessed anywhere at any time.

The processes that constitute INSITE can be described as shown:



CVA Fabrication and Installation Review:

As a CVA, NV5 will use good engineering judgment and practice to conduct an independent assessment of fabrication and installation activities as well as make onsite inspections while fabrication is in progress. Platform fabrication requirements are detailed in 30CFR-250.917.

These inspections will verify the following items, as appropriate:

- Quality control by lessee and builder
- Fabrication site facilities
- Material quality and identification methods
- Fabrication procedures specified in the approved plan, and adherence to such procedures
- Welder and welding procedure qualification and identification
- Structural tolerances specified and adherence to those tolerances
- The nondestructive examination requirements, and evaluation results of the specified examinations
- Destructive testing requirements and results
- Repair procedures
- Installation of corrosion-protection systems and splash-zone protection
- Erection procedures to ensure that overstressing of structural members does not occur
- Alignment procedures
- Dimensional check of the overall structure, including any turrets, turret-and-hull interfaces, any mooring line and chain and riser tensioning line segments
- Status of quality-control records at various stages of fabrication
- Other pertinent parameters of the proposed fabrication

Design verification for the jacket will include:

- Planning criteria
- Operational requirements
- Environmental loading data
- Load determinations
- Stress analysis
- Material designations
- Soil and foundation conditions
- Safety factors
- Other pertinent parameters of the proposed design

Installation

The requirements of 30CFR-250.918 and 30CFR-585.708-710 apply to the installation of the platform; the responsibilities of the NV5 as CVA are to verify the following, as appropriate:

- Load out and initial flotation operations
- Towing operations to the specified location, and review the towing records
- Launching and up righting operations
- Submergence operations
- Pile or anchor installations

- Installation of mooring and tethering systems
- Final deck and component installations
- Installation at the approved location according to the approved design and the installation plan
- Cable installation

In addition, the requirements of 30CFR-250.918 include the need to witness:

- The load out of the jacket, decks, piles, or structures from each fabrication site
- Actual installation of the platform or major modification and the related installation activities

As per 30CFR-250.918 NV5 will also conduct an on-site survey to survey the platform after transportation to the approved location as well as check, as necessary, to determine compliance with the appropriate documents listed in § 250.901(a); the alternative codes, rules and standards approved under § 250.901(b); the requirements listed in § 250.903 and §§ 250.906 through 250.908 of those subparts and the approved plans:

- Equipment
- Procedures
- Record keeping

As CVA, NV5 will monitor the fabrication and installation of the facility to verify that it has been built and installed according to the Facility Design Report and Fabrication and Installation Report. Floating facilities will be reviewed for requirements of the U.S. Coast Guard for structural integrity and stability. Foundations, foundation piling and templates, anchoring systems, and mooring or tethering systems will also be considered.

Reports

A report will be generated to certify that project components are fabricated and installed in accordance with accepted engineering practices, the Fabrication and Installation Report and the approved COP, SAP or GAP. This report will identify the location of all records pertaining to fabrication and installation.

The following reports will be generated and issued by NV5:

Activity	Phase	Report
Project Management	All	Monthly Progress Reports
Platform Jacket	Design	Interim & Final Design Verification Report
Platform Deck	Design	Interim & Final Design Verification Report
Platform Jacket	Fabrication	Interim & Final Fabrication Report
Platform Deck	Fabrication	Interim & Final Fabrication Report
Platform Jacket	Installation	Interim & Final Fabrication Report
Platform Deck	Installation	Interim & Final Fabrication Report

At the end of work NV5 will issue a Final Verification Report, stamped, consolidating all activities performed by NV5.

NV5 may also consult a variety of applicable codes and standards in their performance of CVA duties. Depending on the design of the project, a selection of these codes may include:

- International Electrotechnical Commission (IEC)
- American Petroleum Institute (API)
    - Bulletin 2INT-DG, Interim Guidance for Design of Offshore Structures for Hurricane Conditions
    - Recommended Practice (RP) 2A-WSD, RP for Planning, Designing, and Constructing Fixed Offshore Platforms
    - RP 2FPS, Recommended Practice for Planning, Designing, and Constructing Floating Production Systems
- International Organization for Standardization (ISO)
- American Concrete Institute (ACI)
    - ACI 318-95, ACI318R-95 (Building Code Requirements for Reinforced Concrete)
    - ACI 357R-84 (if fixed concrete structures are included in the design)
- ANSI/AISC 360-05, Specification for Structural Steel Buildings
- American Society for Testing and Materials (ASTM)
    - Standard C 33-07, Specification for Concrete Aggregates
    - Standard C 94/C 94-M-07, Standard Specification for Ready-Mixed Concrete
    - Standard C 330-05, Standard Specification for Blended Hydraulic Cements
    - Standard C 595-08, Standard for Blended Hydraulic Cements
- American Welding Society (AWS)
    - D1.1, Structural Welding Code - Steel
    - D1.4, Structural Welding Code - Reinforcing Steel
    - D3.6M, Specification for Underwater Welding
- National Association of Corrosion Engineers (NACE)

2. CVA Project Execution Procedures

NV5 has developed, and is prepared to execute, the following project approach. In the paragraphs that follow, the key issues associated with the successful execution of manufacturing inspection and review of material purchases.

All data provided to NV5 will be handled in the strictest confidence and will not be released without prior consent. In addition, if selected to perform CVA duties NV5 will not function in any capacity that would create a conflict of interest for this project.

Contract Leadership and Management

Responsibility for achieving the Goals and Objectives begin and end with the Contract Administrator. Under our Project Approach, all operational functions report to and are accountable to the Contract Administrator. Contract Administrator's directives will be communicated to the Project Team through the supervision of specific operational functions. The Contract Administrator will be responsible for ensuring that the Project Team remains focused on executing and delivering the level of services as dictated in the agreement and expressed by the Client.

Project Management

Under our Project Approach, the day-to-day coordination of professional service activities is executed by the Project Manager. This person will identify, implement and oversee that the Client's specific procedures are observed by all of our Proposed Project Team Members. All

assignments or requests for technical support will be communicated through the Project Manager who is the dedicated point of contact; they will be in communication with the various Inspectors and Sub Consultant and other key staff. It shall be through an interactive dialogue with the Client's staff that the Project Manager shall enable the fully compliant execution of each assignment in the most cost-effective option available.

Experienced, Multi-Faceted, Geographically Diverse Staff
Having a national network of inspection personnel, NV5's team is fully committed to providing inspection services and is capable of quickly responding to the Client requests for representation regardless of geographic location. Our inspectors come from many disciplines and are able to handle the diverse requirements (technically and geographically) of inspection assignments.

Timely Reporting
Our Inspectors are required to generate a report for each inspection performed. These reports can be generated at intervals specified by the client and project requirements. These reports will be reviewed by the Project Manager prior to delivery to the client. Should an inspector encounter a non-compliance condition, in which the contractor or fabricator fails to resolve the situation, a non-conformance report will be generated and the client will be notified immediately via telephone with a follow-up e-mail. At that time, recommendations for corrective action will be discussed with the client.

Observance of Industry Standards
NV5 routinely inspects to all of the basic compliance standards such as API, AWS, ASNT, ASTM, NACE, IEEE, ASME, IEC, and NEMA guidelines. It is expected that our Engineers and Inspectors foster professional relationships necessary to remain cognizant of the ever-evolving codes and standards that govern the industry.

Hiring, Training and Supervision of Inspection Staff
NV5 relies heavily on the abilities and aptitude of our staff to carryout assignments in a timely and professional manner. For this reason, we adhere to strict hiring criteria regardless of inspection type. Prior to hiring our Inspectors, Project Managers verify that the applicant has the technical abilities, communication skills and the appropriate certifications to fulfill the job requirements. Copies of certifications are requested and checked for validity.

NV5 has implemented a Health, Safety & Environmental (HSE) Plan designed to minimize and prevent all hazards that may be encountered by our inspection staff and to educate our inspectors on the methods to mitigate or otherwise deal with those hazards. This HSE Plan was implemented with the goal of ensuring that every inspector receives the degree of Quality, Health, Safety and Environmental training necessary to obtain a sufficient level of knowledge and skill to consistently and confidently perform his or her job in a safe and environmentally responsible manner. To achieve these objectives, each Inspector will be required to complete a series of QHSE orientation training sessions.

3. Manufacturing Inspections / Review for Material Purchases

NV5 has been a leader in the inspection of industrial and engineered equipment. Throughout the years, as the specification tolerances have become more stringent, NV5 has provided specialty training to inspectors to reflect the new client specifications. NV5 is routinely requested

to aid in the development of more rigorous client inspection specifications and inspection test plans in this industry.

NV5 worldwide operations are subject to the strict stipulations of a Quality Management System (QMS). This system has been audited and is in compliance with the standards similar to ISO 9001. This Quality Management System is applied to the Company's operations throughout the world. As a result our clients can be confident that, wherever services are provided, a common approach to achieve predetermined objectives will be utilized. Our Conformity Assessment services operate under the model stipulated the International Code Council. Our philosophy is that a Quality Consulting firm should first demonstrate its commitment to pursuing ever improving quality in its own operations before it represents to the marketplace.

We establish and maintain contact with assigned vendors to monitor progress, facilitate performance of inspection tasks and support our client to ensure that their requirements have been met. Please see the sample scope of work for manufacturing inspection and material purchase review below:

Prior to Arrival at Supplier's Premises Review:

- Complete document package for planned scope of supply
- Appropriate Code, Rules and Regulation Quality Assurance requirements and standards
- Schedule of site requirements for manufactured components, parts and assemblies
- Plans for the Client supply of material, if any
- Reporting and communication requirements
- Language in the Contract with manufacturer, including performance and penalty provisions
- Documents such as Bills of Lading, Master Export Packing Lists and Master Packing Lists

Upon Arrival at Manufacturing Plant or Destination:

- Review manufacturer's progress against schedules for:
  - Design/ Drawing releases
  - Detail Drawing completions by the manufacturer
  - Material take offs by the manufacturer
  - Material procurement program by the manufacturer
  - Material substitution approval from the Client
  - Material receipts in the manufacturer's facility
  - Start of fabrication by the manufacturer
  - Production control and monitoring plan
  - Shop labor plan and status of work in progress
  - Shipping Plan, including mode and packaging
- Review manufacturer's documentation for adherence to specifications:
  - Material Test Reports on material received
  - Nondestructive Examination (NDE) Records
  - Welder and weld procedure qualifications
  - Shop Processing plan including tools and fixtures
  - Quality Control Program and Manuals
  - Painting and Preservation plan
  - Receiving inspection and supplier control program

  - Manufacturer's code credentials
- Review Carrier's progress against schedule:
  - Arrival of ship, train or truck shipments
  - Schedule for completion of unloading
  - Location where receipt inspection is to be performed
- Set up Progress Monitoring and Reporting Plan to include as applicable:
  - Check of labor (head count and reported shop hours) applied to contract on each operating work shift or turn
  - Check of materials received versus shop production requirements
  - Check of detail drawing releases to shop versus schedule of shop start dates
  - Check of each shift's inspection records, rejects, quality deviations, errors, shortages or other nonconformities
  - Check of shortages, discrepancies, machine outages, etc. which will obstruct progress - Report actual progress versus plan, highlighting any problems and initiating any actions taken to resolve them
  - Report any quality deviations, rejects, etc. and state action taken to resolve them
  - Report material shortages, substitutions or other problems assessing impact on the order Recommend corrective action if appropriate
  - Witness key nondestructive examinations or proof tests
- Witness a sample of routine dimensional and visual examinations
  - Physically inspect all finished products prior to shipment
  - Review changes enacted by the Client, assess impact on adherence to specifications and schedules and report to the Client
  - Follow up on information transmittals, problem resolution, and responses etc. due from the Client to the manufacturer. Report impact of delays
  - Act as liaison between manufacturer and the Client in handling changes, claims, material substitutions, etc.
- Document actual shipments made by the manufacturer and approve invoices for those shipments per the terms of the contract
  - Coordinate inspections by the Client or our customer and accompany the visitors
  - View and interpret radiograph films, inspection records, welder qualifications, remedial fabrication sequences, etc. to assure continuous adherence to specifications and purchase order requirements
- Observe shop floor control practices over electrodes, filler materials, gauge calibration, reject disposition, etc.
  - Assist manufacturer in interpreting the Client's Drawings and specifications. Promptly refer questions or problems to the Client
  - Report any significant events or potential problems as they occur or become apparent.
- Recommend action as appropriate
  - Communicate with site construction personnel on schedules, shipments, changes, etc.
  - Assure shipping containers, cartons, boxes, etc. are received in good condition. Document all shipping damage and take photographs or use other audio-visual techniques such as videotaping to document internal or external damage
  - Assure number of containers, crates, boxes or parcels comply with required quantities on Bills of Lading, Master Export Packing Lists and Master Packing Lists

- Act as liaison between the carrier, shipper and the Client in claims involving lost or damaged equipment

Close of Contract

- Account for all shipments defined in initial or changed scope of supply. Report status of shortages, remakes, substitutions, repairs, etc. and follow up on all prescribed action
- Approve invoices consistent with actual shipments as defined by the contract
- Identify situations, which require actions by the Client. Recommend action as appropriate
- Function as the Client representative in resolving claims, schedule discrepancies, disputes, etc. acting in full consultation with the Client's personnel
- Account for all of the Client's supplied material, tools, documents, etc.
- Identify any remaining unresolved problems or discrepancies and recommend action as appropriate
- Issue a closing report to the Client summarizing the results achieved versus plan

NV5 recognizes key metrics, which serve to determine "best practices" with respect to manufacturing inspection services. Our commitment to maintaining professional integrity depends almost entirely on our ability to address the needs of the Client. Our intent is to provide the Client, regardless of the service or inspection type, with an established approach focused on enhancing the QA/QC Program implemented by the Client engineers overseeing our services.

3. On-site Inspection Processes

NV5 will provide on-site inspection to determine by direct observation if construction is being completed in accordance with the approved design and other approved specifications. Inspection will assist in the identification of any problems, inadequacies or other weaknesses that could affect facility operations or compliance with the approved project specifications. All inspection summary reports will be accompanied by photo documentation.

On-site inspection processes include the following steps:

- Become familiar with approved project plans and documents prior to inspection
- Conduct site inspection using safe work practices
  - Verify compliance with approved design
  - Verify compliance with applicable codes and standards
- Identify areas of non-compliance
- Prepare correction notice and report as well as discuss non-complying items and solutions with jobsite superintendent
  - In the event corrections are needed the inspector will provide comment as to the code infraction and follow up with a secondary inspection
- For serious violations, notify BOEM and issue stop work notice in accordance with agency policies and procedures
- Provide re-inspections as necessary to address non-complying items
- Provide inspection records in accordance with jurisdiction policies and procedures

On-site inspectors will work in a collaborative manner with the construction and installation personnel to accommodate the inspection scheduling so that work is not impeded and compliance verification can take place.

4. BOEM Reporting Processes

As a requirement of 30CFR-585 and 30CFR-250 offshore wind projects will be required to file a Facility Design Report and a Fabrication and Installation Report with BOEM. If chosen as the CVA for this project NV5 will verify that the project is in compliance with these required reports as is required by the CVA role.

Upon successful review of documentation provided, the Facility Design Report will include specific details about the project and will demonstrate that the design complies with the requirements of 30CFR-585 and 30CFR-250 as applicable and the project's approved SAP, GAP, or COP, as appropriate. The Fabrication and Installation report will include information regarding how facilities complied with the approved SAP, GAP, or COP.

As the CVA, NV5 will provide BOEM with immediate reports of all incidents that affect the design, fabrication and installation of the project and its components. In addition, reports to BOEM will identify the location of all records pertaining to fabrication and installation.

All reports submitted will include:

- Details of how, by whom, and when CVA activities were conducted
- Describe the CVA's activities during the verification process
- Summarize CVA findings
- Provide additional comments when necessary

NV5 will meet with BOEM prior to the start of the project to specify what reporting requirements will be and develop a reporting schedule.

5. Summary

As a Certified Verification Agent, NV5 will be responsible for verifying that the design, fabrication, and installation of offshore wind projects are in compliance with accepted and approved plans and the requirements of the approved project as well as a compilation of international standards, rules, industry guidelines and recommended practices. The preceding pages have detailed some of our proposed approach to providing these services, our expertise and previous experience in similar projects (both in the United States and abroad).

NV5 is a global leader, creating added value to our clients through assistance in risk mitigation and performance optimization while providing compliance services. We believe that our team of highly skilled experts will be the provider of choice for this unique, landmark project.