



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL

Drug-Free Workplace Policy

DMS 0008-7991
R02
Date: 2010-01-01
Page 1 of 4

Contents

1. Drug and Alcohol-Free Workplace	1
2. Drug and Alcohol Testing	2
3. Reasonable Suspicion	2
4. Post-Accident	2
5. Drug Testing Procedures	3
6. Security Inspections	3

1. Drug and Alcohol-Free Workplace

Vestas prohibits drugs and alcohol anytime, anywhere business is conducted. Vestas prohibits the unlawful possession, use or distribution of illicit drugs and/or alcohol on company worksites at any time or by employees conducting company business at any time, in any location.

This policy helps to maintain a safe, healthful and efficient working environment for everyone and protect the company's property, equipment and operations, and the public at large. Vestas reserves the right to search and inspect an employee's work area and personal belongings to maintain a safe workplace.

Here are some of the actions expected of you:

- Employees may not use, sell, distribute or possess illegal drugs, including any drug illegal under any law, or controlled substances, during working hours or on Vestas or Company property or while using Vestas equipment or vehicles. Employees may not report to work under the influence of a controlled substance.
- Employees may not consume alcohol during working hours or report to work under the influence of alcohol. Employees may not possess open containers of alcoholic beverages in company vehicles and equipment, around the worksite or on company property, or while conducting business on behalf of Vestas.
 - The only exception to this rule is when alcohol is being consumed as part of an approved company social function. In such an event, employees must ensure that they act reasonably and responsibly and at no time become intoxicated or otherwise consume excessive amounts of alcohol.
- **Sales/Service Business Unit Only:** Employees working at a project or service site should use caution when consuming alcohol outside of work hours. Vestas will not reimburse any employees working at a project or service site for the cost of alcohol purchased while assigned to or visiting the site, regardless of their job classification or if they are there on a temporary or full-time basis.
- Employees must notify their manager within five days of any conviction related to violating any state and/or federal statute relating to the use, production, possession, processing, manufacturing, selling, disposition, transportation or importation of any illicit or controlled substances, or alcohol. Employees whose position requires them to drive a vehicle must notify their manager within five days of any restriction, revocation or suspension of their license. Employees may appropriately use prescription drugs prescribed by a health care provider or over-the-counter



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL

Drug-Free Workplace Policy

DMS 0008-7991
R02
Date:2010-01-01
Page 2 of 4

medications, provided they can satisfactorily and safely perform all of the essential functions of their job while using the medication. Vestas may require an employee to see a health care provider at Vestas' expense, to confirm whether the employee can satisfactorily and/or safely perform the essential functions of the job while using the medication.

- Employees must comply with Vestas' drug testing program as a condition of employment. Refusal to take a required drug test or failure of a drug test will result in disciplinary action. Refusal to test includes, but is not limited to, adulteration or substitution of a urine sample.
- Employees who work off premises are subject to the same Drug- and Alcohol-Free Workplace policy as other employees. Employees who violate any aspect of this policy may be subject disciplinary action, up to and including termination, and referral for prosecution for any violations of the law. Vestas may reasonably accommodate any employee who wishes to voluntarily enter and participate in a drug or alcohol rehabilitation program, in accordance with all applicable laws. Rehabilitation, however, is not a substitute for discipline.

2. Drug and Alcohol Testing

As allowed by applicable job, candidates for employment are required to submit to a post-offer, pre-employment drug test. All Vestas employees are subject to drug and alcohol testing when there is reasonable cause to suspect violation of company policy or anytime a work-related accident occurs.

3. Reasonable Suspicion

Employees may be required to submit to a drug or alcohol test when there is a reasonable suspicion that they have violated the Drug- and Alcohol-Free Workplace policy, or are under the influence of drugs, including illegal drugs, prescription drugs for which the employee does not have a prescription or prescription drugs that are not being taken in accordance with a health care provider's direction, and/or alcohol while working, on Vestas' property or while operating Vestas' vehicles, machinery or equipment. "Reasonable suspicion" means suspicion based on specific personal observations that a Vestas manager or supervisor can describe concerning the appearance, behavior, speech or odor of the employee.

When reasonable suspicion exists, Vestas will transport the employee to the specimen collection site. After specimen collection is completed, the employee will be transported to his/her residence at Vestas' expense.

4. Post-Accident

All employees involved with a work-related accident may be required to submit to a drug or alcohol test. This includes employees who sustain a work-related personal injury, cause another employee to sustain a work-related personal injury, cause a work-related accident, or employees who were operating or helping to operate machinery, equipment or vehicles involved in a work-related accident that results in an injury.

An employee who is subject to post-accident testing who fails to remain readily available for such testing, including notifying Vestas of his/her location if he/she leaves the scene of the accident prior to submission to such test, may be considered by Vestas to have refused to submit to testing.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL

Drug-Free Workplace Policy

DMS 0008-7991
R02
Date: 2010-01-01
Page 3 of 4

If there is suspicion of alcohol involvement, the employee may be required to submit to an alcohol test within two hours of the accident. An employee has the right to refuse to submit to drug and alcohol testing; however, refusal by an employee to submit to such a test will result in disciplinary action up to and including termination. Refusal to test includes, but is not limited to, adulteration or substitution of a urine sample.

5. Drug Testing Procedures

A health care provider acting as a Medical Review Officer (MRO) will review all positive controlled substance test results before they are reported to Vestas.

If the testing laboratory reports a positive result to the MRO, the MRO will contact the affected employee (in person or by telephone) and conduct an interview to determine if there is an alternative medical explanation for the controlled substance found in the employee's results.

Employees will be given an opportunity to discuss the use of medically authorized drugs and any over-the-counter drugs with the MRO prior to any positive test result being reported to Vestas.

If the affected employee provides appropriate documentation and the MRO determines that legitimate medical reason for the presence of the controlled substance exists, the controlled substance test result shall be reported as negative to Vestas. In the event of positive test results, Vestas shall inform the employee of the positive test result and the employee's right to request an additional test of the same specimen at a different certified laboratory at his or her own expense. The employee must notify Vestas of his/her intention to obtain the additional test within 24 hours after notice of the positive test result. The employee will be suspended without pay pending the result of the additional test. In the event of a positive test result on the additional test, the employee will be disciplined, up to and including termination of employment. In the event of a negative test result, Vestas shall pay for the additional testing and any lost wages based on the employee's regular work schedule.

6. Security Inspections

Drugs, alcohol or weapons are prohibited at work. Vestas will conduct security inspections in order to maintain a work environment that is free of illegal drugs, alcohol, weapons or other improper materials. To this end, the company prohibits the control, possession, transfer, sale or use of such materials on its premises. Employees should not expect privacy in their workspace, including desks and lockers. Security inspections may be conducted on any package (including purses, bags, briefcases, backpacks, etc.) and person entering and/or leaving the premises. Here are some of the actions expected of you:

- Do not bring prohibited items onto the company's premises.
- Be prepared to submit to random security inspections with or without reasonable suspicion of possession of prohibited items.
- Employees must accommodate the inspection of desks, lockers and other storage devices by any agent or representative of the company at any time, either with or without prior notice.
- Understand that Vestas may inspect not only desks and lockers, but also packages and persons entering and/or leaving the premises.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Drug-Free Workplace
Policy**

DMS 0008-7991
R02
Date: 2010-01-01
Page 4 of 4

Vestas will confiscate prohibited items and conduct an investigation regarding any items found in an employee's possession. Employees who violate any company policies are subject to disciplinary action and referral for prosecution for violating the law.

**VCWT Drug-Free
Workplace Policy****Contents**

1.	Drug and Alcohol-Free Workplace	1
2.	Drug and Alcohol Testing	1
3.	Reasonable Suspicion	2
4.	Post-Accident	2
5.	Drug Testing Procedures	3
6.	Security Inspections	3

1. Drug and Alcohol-Free Workplace

Vestas prohibits drugs and alcohol anytime, anywhere business is conducted. Vestas prohibits the unlawful possession, use, or distribution of illicit drugs, misuse of prescription drugs, and/or alcohol on company worksites at any time or by employees conducting company business at any time, in any location.

This policy helps to maintain a safe, healthful and efficient working environment for everyone and protect the company's property, equipment and operations, and the public at large. In order to maintain a safe workplace, Vestas reserves the right to conduct reasonable searches of an employee's work area and personal belongings to maintain a safe workplace for legitimate business purposes in the least invasive way possible in the circumstances.

Here are some of the actions expected of you:

- Employees may not use, sell, distribute or possess illegal drugs, including any drug illegal under any law or controlled substances, during working hours or on Vestas or Company property or while using Vestas equipment or vehicles. Employees may not report to work under the influence of a controlled substance.
- Employees may not consume alcohol during working hours or report to work under the influence of alcohol. Employees may not possess open containers of alcoholic beverages in company vehicles and equipment, around the worksite or on company property, or while conducting business on behalf of Vestas.
 - The only exception to this rule is when alcohol is being consumed as part of an approved company social function. In such an event, employees must ensure that they act reasonably and responsibly and at no time become intoxicated or otherwise consume excessive amounts of alcohol.
 - SBU Only: Employees working at a project or service site should use caution when consuming alcohol outside of work hours. Vestas will not reimburse any employees working at a project or service site for the cost of alcohol purchased while assigned to or visiting the site, regardless of their job classification or if they are there on a temporary or full-time basis.
- Employees must notify their manager within five days of any conviction related to violating any federal and/or provincial legislation relating to the use, production, possession, processing, manufacturing, selling, disposition, transportation or importation of any illicit or controlled substances, or alcohol. Employees whose

position requires them to drive a vehicle must notify their manager within five days of any restriction, revocation or suspension of their license.

- Employees may appropriately use prescription drugs prescribed by a health care provider or over-the-counter medications, provided they can satisfactorily and safely perform all of the essential functions of their job while using the medication. Vestas may require an employee to see a health care provider at Vestas' expense, to confirm whether the employee can satisfactorily and/or safely perform the essential functions of the job while using the medication.
- Employees in a safety-sensitive position must comply with Vestas' drug testing program as a condition of employment. Refusal to take a required drug test or failure of a drug test will result in disciplinary action. Refusal to test includes, but is not limited to, adulteration or substitution of a urine sample.
- Employees who work off premises are subject to the same Drug- and Alcohol-Free Workplace policy as other employees.
- Employees who violate any aspect of this policy may be subject disciplinary action, up to and including termination, and referral for prosecution for any violations of the law.
- Vestas may reasonably accommodate any employee who wishes to voluntarily enter and participate in a drug or alcohol rehabilitation program, in accordance with all applicable laws. Rehabilitation, however, is not a substitute for discipline.

2. Drug and Alcohol Testing

As allowed by applicable job, candidates for employment are required to submit to a post-offer, pre-employment drug test. All Vestas employees are subject to drug and alcohol testing when there is reasonable cause to suspect violation of company policy or anytime a work-related accident occurs.

3. Reasonable Suspicion

In accordance with applicable provincial law, employees in a safety sensitive position may be required to submit to a drug or alcohol test when there is a reasonable suspicion that they have violated the Drug- and Alcohol-Free Workplace policy, or are under the influence of drugs, including illegal drugs, prescription drugs for which the employee does not have a prescription or prescription drugs that are not being taken in accordance with a health care provider's direction, and/or alcohol while working, on Vestas' property or while operating Vestas' vehicles, machinery or equipment.

"Reasonable suspicion" means suspicion based on specific personal observations that a Vestas manager or supervisor can describe concerning the appearance, behavior, speech or odor of the employee.

When reasonable suspicion exists, Vestas will transport the employee to the specimen collection site. After specimen collection is completed, the employee will be transported to his/her residence at Vestas' expense.

4. Post-Accident

In accordance with applicable provincial law, employees involved with a work-related accident may be required to submit to a drug or alcohol test where impairment is reasonably suspected to be a contributing factor. This includes employees who sustain a work-related

**VCWT Drug-Free
Workplace Policy**

personal injury, cause another employee to sustain a work-related personal injury, cause a work-related accident, or employees who were operating or helping to operate machinery, equipment or vehicles involved in a work-related accident that results in an injury.

An employee who is subject to post-accident testing who fails to remain readily available for such testing, including notifying Vestas of his/her location if he/she leaves the scene of the accident prior to submission to such test, may be considered by Vestas to have refused to submit to testing.

If there is suspicion of alcohol involvement, the employee may be required to submit to an alcohol test within two hours of the accident.

An employee has the right to refuse to submit to drug and alcohol testing; however, refusal by an employee to submit to such a test will result in disciplinary action up to and including termination. Refusal to test includes, but is not limited to, adulteration or substitution of a urine sample.

5. Drug Testing Procedures

A health care provider acting as a Medical Review Officer (MRO) will review all positive controlled substance test results before they are reported to Vestas.

If the testing laboratory reports a positive result to the MRO, the MRO will contact the affected employee (in person or by telephone) and conduct an interview to determine if there is an alternative medical explanation for the controlled substance found in the employee's results.

Employees will be given an opportunity to discuss the use of medically authorized drugs and any over-the counter drugs with the MRO prior to any positive test result being reported to Vestas.

If the affected employee provides appropriate documentation and the MRO determines that legitimate medical reason for the presence of the controlled substance exists, the controlled substance test result shall be reported as negative to Vestas.

In the event of positive test results, Vestas shall inform the employee of the positive test result and the employee's right to request an additional test of the same specimen at a different certified laboratory at his or her own expense.

The employee must notify Vestas of his/her intention to obtain the additional test within 24 hours after notice of the positive test result. The employee will be suspended without pay pending the result of the additional test.

In the event of a positive test result on the additional test, and if deemed to be appropriate, the employee will be disciplined, up to and including termination of employment. In the event of a negative test result, Vestas shall pay for the additional testing and any lost wages based on the employee's regular work schedule.

6. Security Inspections

Drugs, alcohol or weapons are prohibited at work.

Where Vestas concludes it is reasonable and necessary to do so, Vestas will conduct random security inspections in order to maintain a work environment that is free of illegal drugs, alcohol, weapons or other improper materials. To this end, the company prohibits the control, possession, transfer, sale, or use of such materials on its premises.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL

VCWT Drug-Free Workplace Policy

DMS 0008-7899
R01
Date: 2010-01-01
Page 4 of 4

While Vestas will, in each case, determine the most appropriate and least intrusive method necessary in the circumstances of carrying out a search, employees should not expect privacy in their workspace, including desks and lockers. Security inspections may be conducted on any package (including purses, bags, briefcases, backpacks, etc.) and person entering and/or leaving the premises.

Here are some of the actions expected of you:

- Do not bring prohibited items such as guns, drugs or alcohol onto the company's premises.
- Be prepared to submit to random security inspections where Vestas has reasonable suspicion of possession of prohibited items.
- Employees must accommodate the inspection of desks, lockers and other storage devices by any agent or representative of the company at any time, either with or without prior notice.
- Understand that Vestas may inspect not only desks and lockers, but also packages and persons entering and/or leaving the premises.

Vestas will confiscate prohibited items and conduct an investigation regarding any items found in an employee's possession. Employees who violate any company policies are subject to disciplinary action and referral for prosecution for violating the law.



RESTRICTED TRADE SECRET & CONFIDENTIAL
**HSE Site Inspection
Checklist**

DMS 0008-8003 R03
Date 2010-10-01
Page 1 of 4

Site: _____ Date: _____

Site Supervisor: _____

Complete ALL applicable checklist items.
Note: All "NO" answers will require corrective action.

Slips, Trips And Falls - Slips, trips and falls account for nearly a quarter of workplace injuries. Ensure that the workplace is maintained free of hazards that could result in slip trip or fall incidents.

	YES	NO
Floors		
1. Are floor surfaces free of water, ice, oil or other fluids?		
2. Are floor surfaces even? (e.g. no loose tiles or carpet that is torn or has ridges or holes?)		
3. Are ramps designed to prevent slips and falls?		
Housekeeping		
4. Are aisles, walkways and doorways clear of obstructions?		
5. Are leaks and spills cleaned up immediately?		
6. Are substance specific spill clean-up supplies readily available to respond to a spill?		
7. Are the responsibilities for cleaning floors, clearing work areas and walkways clearly specified?		
Stairs		
8. Are any changes in pathway elevation clearly or conspicuously marked?		
9. Are stairways kept clear of boxes, equipment other obstructions?		
10. Is the tread on stairs adequate to minimize slipping?		
11. Is the foot-space on each stair adequate?		
12. Are the handrails adequate?		
Lighting		
13. Are work areas, walkways and stairs well lit?		
14. Does the lighting enable workers to move between indoor and outdoor tasks safely?		
15. Are all light fixtures operable and equipped with working bulbs?		

Emergency Procedures - To ensure the safe evacuation of all affected personnel in case of an emergency. This checklist will help you evaluate your current emergency response procedures. Multi-employer worksites can use the checklist to coordinate your emergency response procedures.

Evacuation		
16. Have known or potential emergencies that could require an evacuation of the working area been identified and evaluated? Example: fire, explosion, chemical spills, earthquakes, flooding, tornados,		
17. Have all site employees reviewed the emergency response plans for such events?		
Responsibility		
18. Have you nominated a person(s) to be responsible for managing the evacuation?		
Signal to evacuate		
19. Have you identified what device or method will be used to signal an evacuation?		
20. Have you identified where these signals will be located?		
21. Is someone authorized to be responsible for activating the signal?		
22. Have you identified how people will be evacuated from the workplace (e.g. the shortest and most direct route to safety, the routes people should use, how people with disabilities would evacuate)?		
23. Do you have a primary and secondary assembly place for evacuation?		
24. Have you identified the checks that should be followed to ensure everyone is accounted for?		
25. Have you identified a signal that gives the all clear in return, and nominated who will give it?		
Re-entry - Have you established re-entry management procedures?		
27. Are emergency procedures displayed in your workplace?		
28. Are fire extinguishers in compliance and easily accessible?		



RESTRICTED TRADE SECRET & CONFIDENTIAL
**HSE Site Inspection
Checklist**

DMS 0008-8003 R03
Date 2010-10-01
Page 2 of 4

29. Is there documentation of the plan being tested?		
30. Are all employees aware of the emergency procedures?		

Chemical Inventory Management – Every chemical substance used at Vestas worksites should have a supplier provided Material Safety Data Sheet (MSDS) which defines any safety risks and how to manage them. A current Chemical Inventory List for the site should be available

31. Are chemicals used in the workplace?		
32. Is a Chemical Inventory List available and kept current for the site?		
33. Is there a document custodian for the MSDS binder?		
34. Are all chemical substance used at this site properly labelled per regulations?		
35. Is a current (3 years or less) MSDS available for each chemical substance?		
36. Have all current site employees reviewed the MSDS binder and know where to find it?		
37. Is PPE defined by the MSDSs available for employee use?		
38. Is proper containment and storage (compatibility) practiced?		
39. Are employees informed of any new products, or reformulations?		

Machinery And Equipment - Ensure that machinery and equipment in your workplace are safe, used properly and maintained in good repair.

Safety Device &, Guards		
40. Are machine guards in place on all operating equipment?		
41. Are belts, pulleys, and other rotating parts properly guarded?		
42. Are emergency stop buttons clearly visible and operational?		
Work Areas		
43. Is there adequate clearance/aisle space around machinery and equipment?		
44. Are machinery and equipment areas kept clean?		
45. Is ventilation appropriate and adequate for the work area?		
46. Is noise reduced by mufflers, baffles, or isolation of the machinery or equipment?		
47. Are tools and equipment stored in their proper places?		
Safe Operation		
48. Are records available to show that workers are trained to operate machinery safely?		
49. Are workers trained in proper equipment and site access procedures?		
50. Are workers supervised to ensure correct operating procedures are followed?		
51. Is task or hazard appropriate personal protective equipment issued, worn properly, inspected regularly for damage and wear, and maintained in good condition?		
52. Are forklift operators trained on or evaluated to safely operate the specific equipment at the site?		
53. Are forklift training records available and current (every three years)?		
54. Is access to forklift operation controlled?		

Personal Protective Equipment

55. Hard hats are issued, and worn correctly and as required?		
56. Is task/hazard appropriate footwear worn by all workers in the workplace?		
57. Is task/hazard appropriate eye/face protection (goggles, glasses, shields) issued and worn?		
58. Is task/hazard appropriate hand/arm protection issued and worn?		
59. Are LOTO sets (lock, hasp & tags) issued to each authorized employee and applied correctly.		
60. Is training (initial and annually thereafter) available for all (authorized and affected) employees?		
61. Is personal fall protection equipment issued, worn properly, inspected regularly (quarterly) for damage and wear, and maintained in good condition?		
62. Is training (initial and annually thereafter) available for all affected employees? Training records include the PPE Issue & Training AND Fall Arrest System Inspection forms.		



RESTRICTED TRADE SECRET & CONFIDENTIAL
**HSE Site Inspection
Checklist**

DMS 0008-8003 R03
Date 2010-10-01
Page 3 of 4

ELECTRICAL - ensure that the electrical equipment and other energy sources in your workplace are safe and inspected and maintained regularly.

63. Are circuit breaker panels accessible and free of obstacles? (Minimum 36" directly in front)		
64. Is portable electrical equipment protected by safety switches? (mandatory for construction work)		
65. Are all power points, fittings and switches in a safe place and free of obvious defects <i>mounted securely, no loose covers, wires, broken or damaged fittings, or signs of overheating?</i>		
66. Are panels, circuit breakers, main and isolating switches clearly labelled and accessible?		
67. Are corded devices (vacuums, drills, grinders, etc) properly inspected and tagged in accordance with DMS 0008-7990?		
68. Are extension cords and power boards routed safely to prevent mechanical or other damage?		
69. Are extension cords used in lieu of permanent wiring (in place for greater than 30 days)		
70. Are the electrical fittings and electrical equipment, including portable power tools, regularly inspected and maintained?		
71. Does the site have at least one Energy Control Coordinator (ECC) for each platform?		
72. Are LOTO forms correctly filled out and returned to the ECC in a timely manner? (sample work orders, view LOTO forms and JSA for this work) Does LOTO boundary match the task		
73. Does the site have sufficient quantities of Arc Flash clothing?		
74. Are there adequate levels of Class 2 & 4 PPE to support operations <ul style="list-style-type: none">- Class 4 - two per site 1 per 10 technicians- Class 2 - one per technician		
75. Determine if HV gloves are safe for use and in certification date?		
76. Is there an area identified to quarantine HV gloves that are not safe to use?		
77. Check for foreign material between leather and HV gloves		
78. Are electrical safety gloves (1 Kv) properly stored in a way to keep them safe from damage?		
79. Group lockout kits are available, properly marked, and correctly used?		
80. Are personal LOTO sets (blue locks, hasp & tags) issued to each authorized employee, properly marked?		
81. Do the technicians should have Blue locks with their name on them and Personal tags that have the technician's name and picture		
82. Does site have a centrally located, controlled, and inventoried LOTO center for guests, visitors, and traveling/visiting technicians? (Blue locks no name and generic tags no name or picture)		
83. Is there a process for issuing and tracking temporary Blue personal locks?		
84. Is LOTO program level 0 & 1 training being conducted for guests and visitors?		
85. Are annual retraining documents available?		
86. Are all site technicians qualified level 2 or higher?		
87. Are LOTO devices being used in accordance with OSHA or Provincial/ Territorial OHS regulations (Blue personal or Red control locks not found on lockers, plastic tuff totes, etc.)		
88. Are portable electrical tools and equipment properly grounded or of the double insulated type?		
89. Are up to date turbine single line and plant outlines available, current, and posted (if possible)? Can a technician locate and explain them?		
90. Have a level 3 or ECC qualified technician demonstrate locating a schematic on the tech doc disk or on the HUB.		
91. Are building earthing/grounding systems intact, clean, and secure? Does the site have a method of verifying that the earthing/grounding systems are intact?		
92. Are computer and electrical equipment cords secure to prevent strain or to prevent trip hazards?		
93. Are extension cords daisy chained together?		
94. Are there any loose, taped, unprotected, or exposed wiring in the facility?		
95. Have all voltage testers been calibrated in within the last year?		
96. Are personal Work practice audits being performed by the Site manger?		
97. Are site electrical audits being complete by the Site Manager on a Quarterly basis?		



RESTRICTED TRADE SECRET & CONFIDENTIAL
**HSE Site Inspection
Checklist**

DMS 0008-8003 R03
Date 2010-10-01
Page 4 of 4

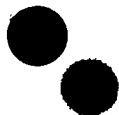
ENVIRONMENTAL MANAGEMENT – ensure that procedures are followed in your workplace in accordance with ISO 14001.

98. Are employees aware of where they can find the Vestas environmental policy?		
99. Are employees aware of what activities they perform that could have an impact on the environment?		
100. If there was an environmental accident at the site do employees know how to communicate the details of the accident with HSE?		
101. Have all employees completed the general awareness training for ISO 14001 EMS?		
102. Do employees know what the HSE objectives and targets are and where to find them?		
103. Are bulk fluids being stored with secondary containment?		
104. Are all chemicals accurately labelled with their contents?		

NOTES ("NO" answers will require Corrective Action):

Concern Or Issue	Corrective Action	Assigned To (Initials)	<u>Proposed</u> Completion Date

TRADE SECRET & CONFIDENTIAL



Contents

1. Purpose.....	2
2. Scope	2
3. Definitions.....	2
4. Regulatory References.....	2
5. General Requirements	2
5.1 Localization	2
5.2 Weekly Safety Meetings	2
5.3 Post Incident Safety Meetings	3
6. Responsibilities.....	3
6.1 Site/Construction Managers Shall:.....	3
7. Instructions.....	3
7.1 Completing the Safety Meeting Attendance Record (SMAR) Form.....	3
7.2 Guidelines for Completing SMAR Form	3
8. History of this Document	4

1. Purpose

Vestas Americas requires site supervisors to hold or arrange weekly safety meetings at all sites. The Safety Meeting Attendance Record (SMAR) (DMS 0008-6846) form has been prepared as the official company record keeping document for tracking frequency and duration, topics discussed and recording attendance at safety meetings.

2. Scope

Vestas Americas – All locations

3. Definitions

Word:	Definition
None	N/A

4. Regulatory References

- OSHA 29 CFR Parts 1904 and 1952
- AME-HB.HSE.01 – 3.4 Safety Meeting Attendance Record - Form
- AME-HB.HSE.01 – 3.8 Safety Records Management and Reporting

5. General Requirements

5.1 Localization

- 5.1.1 For those areas where this Safety Manual differs from the Vestas Group requirements, this manual shall prevail.
- 5.1.2 In some cases, Vestas Americas has implemented a requirement that may exceed a state or provincial requirement – the higher level requirement in the Safety Manual will prevail.
- 5.1.3 In the event that a state or provincial requirement exceeds a Safety Manual procedure – the higher level requirement will prevail.

5.2 Weekly Safety Meetings

- 5.2.1 Conduct weekly safety meeting with all personnel
- 5.2.2 Document the weekly safety meeting with the Safety Meeting Attendance Record (SMAR) (DMS 0008-6846) form.
- 5.2.3 Maintain site records of all safety meetings held per the Safety Records Management and Reporting procedure.
- 5.2.4 Forward a copy of the completed SMAR (DMS 0008-6846) form to their respective site folder in the X: Drive.

5.3 Post Incident Safety Meetings

- 5.3.1 Conduct a post incident safety meeting as immediately after each incident or near miss as is practical (in no case later than the beginning of the next business day).
- 5.3.2 Document the post incident safety meeting with the Safety Meeting Attendance Record (SMAR) (DMS 0008-6846) form.
- 5.3.3 Maintain site records of all post incident safety meetings held per the Safety Records Management and Reporting procedure.
- 5.3.4 Forward a copy of the completed SMAR (DMS 0008-6846) form to the respective site folder in the X: Drive.

6. Responsibilities**6.1 Site/Construction Managers Shall:**

- 6.1.1 Ensure safety meetings are scheduled, held and documented.
- 6.1.2 Ensure all personnel on site at the time of the meeting – attend and participate in the safety meeting.
- 6.1.3 Document the safety meeting using the SMAR (DMS 0008-6846) form and forward a copy to the respective site folder in the X: Drive.
- 6.1.4 File original SMAR (DMS 0008-6846) form in the site safety records.

7. Instructions**7.1 Completing the Safety Meeting Attendance Record (SMAR) Form**

- 7.1.1 The SMAR (DMS 0008-6846) form serves as a record of the regular opportunity to share safety information with all employees and for employees to voice their concerns and / or make suggestions to the site management in regard to improving environment, health and / or safety conditions or practices.
- 7.1.2 The form requires fields to be completed that identify the site, the date and week of the meetings, what was discussed and who attended. The form also provides a space for recording concerns or suggestions.
- 7.1.3 When completed, the SMAR (DMS 0008-6846) form is a legal document and shall be filed with the site safety records – and a copy forwarded to the respective site folder in the X: Drive. It is important therefore that the SMAR (DMS 0008-6846) form be completed accurately and legibly.

7.2 Guidelines for Completing SMAR (DMS 0008-6846) Form

The first column lists the SMAR (DMS 0008-6846) form fields; the second column provides recommendations to enter and / or examples.

- 7.2.1 When the meeting is finished and all participants have signed, the site manager shall ensure that the names of persons who did not attend are listed, and that all applicable fields of the form are completed.
- 7.2.2 The completed form shall be filed with the site safety records – and a copy forwarded to the respective site folder in the X: Drive.

**Site Safety Meetings**DMS 0008-6845 R01
Date: 2010-01-01
Page 4 of 5**8. History of this Document**

Rev. no.:	Date:	Description of changes
00	2005-09-21	First edition – Reformatted, renumbered 12-Apr-2007
01	2010-01-01	Content and template updated.

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Site Safety Meetings

DMS 0008-
Date: 2
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DMS 0008-6845 R01
Date: 2010-01-01
Page 5 of 5

SAFETY MEETING ATTENDANCE RECORD

MEETING TYPE: ☐ Weekly safety ☐ Pool Incident CONDUCTED BY:

SITE/PROJECT: CITY/STATE:

DATE: _____ WEEK #: _____ TIME (FROM/TO): _____

SAFETY TOPIC(S) ADDRESSED:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466
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CREW SAFETY CONCERN(S) or SUGGESTIONS:

--

PARTICIPANTS:

NAME (PRINTED)

SIGNATURE

COMPANY (if other than Western)

NAME (PRINTED)	SIGNATURE	DATE TEST, IN WORDS (MONTH, DAY, YEAR)
1		
2		
3		
4		
5		
6		
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8		
9		
10		
11		
12		

LIST EMPLOYEE(S) WHO WERE ABSENT FROM THIS TRAINING SESSION

--

IS MEETING INFORMATION AVAILABLE (ATTACHED) FOR REVIEW BY PERSON(S) ABSENT? ☐ YES ☐ NO

When completed, SCAN and EMAIL Signed COPY TO safety@wccas-aet.com, attach any additional sheets.
FILE ORIGINAL completed report in Site Safety Records

Page of

14052619 Feb 26 6 50 PM 2014

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TRADE SECRET & CONFIDENTIAL

Safety Meeting Attendance Record

Vestas

MEETING TYPE: ☐ Weekly Safety ☐ Post Incident CONDUCTED BY: _____

SITE/PROJECT: _____ CITY/STATE: _____

DATE: _____ WEEK #: _____ TIME (FROM/TO): _____

SAFETY TOPIC(S) ADDRESSED:

CREW SAFETY CONCERN(S) or SUGGESTIONS:

PARTICIPANTS:

NAME (PRINTED)	SIGNATURE	COMPANY (If other than Vestas)
1		
2		
3		
4		
5		
6		
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8		
9		
10		
11		
12		

LIST EMPLOYEE(S) WHO WERE ABSENT FROM THIS TRAINING SESSION:

IS MEETING INFORMATION AVAILABLE (ATTACHED) FOR REVIEW BY PERSON(S) ABSENT? ☐ YES ☐ NO

When completed, SCAN and EMAIL Signed COPY TO safety@vestas-awt.com, and attach any additional sheets.
FILE ORIGINAL completed report in Site Safety Records.

DMS 0008-7897 R5 09-July-2010
DMS 0008-6846 R1 01-Jan-2010

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Page 1 of 1
VAME HSE Manual

PARTICIPANTS (cont'd):

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	NAME (PRINTED)	SIGNATURE	COMPANY (If other than Vestas)
13			
14			
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When completed, SCAN and EMAIL Signed COPY TO safety@vestas-awt.com, and attach any additional sheets.
FILE ORIGINAL completed report in Site Safety Records.

Page _____ of _____

Vestas**JSA - Job Safety Analysis**

The JSA is to be used daily prior to each activity / bundle assignment.

Date: _____

Location/Turbine ID: _____

Wind Speed _____

Description of Work/Task: _____

Safe Work Approach: Process Decision Tree**1 Are all team members qualified (certification level) to perform the task assignments?**

(If yes, continue on to Q2; if no, stop and contact a Lead or Supervisor)

2 Has the team performed this task safely in the last 6 months?

(If yes, continue on to Q3; if no, contact a Lead or Supervisor)

3 Is there a AME released work instruction, Site approved Pre-Task Plan (PTP) or HSE policy / procedure that directly matches this task?

(If yes, continue on to Q4; if no, create/modify PTP with appropriate oversight and approvals and then complete a new JSA)

+ The equipment configuration (CIM, Mark Version, BoP, Other upgrades/retrofits) matches the task document?

+ Team member certification level > = the task document level?

4 Are you confident that there are not multiple problems contributing to the symptom?

(If yes, continue on to Q5; if no, contact a Lead or Supervisor)

5 Do you have the tools and PPE specified in the task documentation (calibrated/certified)?

(If yes, continue; if no address the gaps before continuing)

6 Are you working with someone you haven't worked with recently.

(If yes, complete new Team Member Considerations sections)

TO BE COMPLETED PRIOR TO ENGAGING IN WORK ACTIVITY

Minimum requirement: Identify top 3 highest potential risks

Additional Risks ("What If" perspective)Potential unplanned, unexpected risks that are not documented.
See below yellow highlighted for required considerations areas**Prevention Methods**

Special or additional protocol, test, procedure, PPE, tool approach, breaks, stretches, etc (Use IECC for LOTO related items)

Risk Prevention
Verified (Initials)Risk Prevention
measures
removed / Ready
to run (Initials)

1				
2				
3				
4				
5				
6				
7				

DMS 0008-7897 Rev 05 July-2010 Vestas Confidential

VAME HSE Manual

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JSA - Job Safety Analysis

The JSA is to be used daily prior to each activity / bundle assignment.

Hazardous Conditions Reference Sheet (Not an all-inclusive list - intended to stimulate ideas for possible risks / hazards)

Preconditions: Unusual failure mode that could present additional / unknown risks (stored electrical, mechanical, fluid energy)

- + Review VIM, / VIS: alarm logs, operational data, past SAP Service Orders, prior failures, software changes, prior operational issues, open punch list and CIM items
- + Lack of WTG communications
- + Uncertain / Unusual alarm / problem situation
- + Turbine not visited in long time (critters, insects, mold)
- + Weather issue in turbine (e.g. water, dirt, ice)

All typical risk mitigation covered in released or PIP documentation

- + Configuration specific considerations (WTG or Customer BOP)
- + Remote operations LOTO, parameter settings

Physical and mental status of each team member

- + SIFT, sore, tired, sick, other

Grid related issue, External generator hook-up

Current or forecasted environmental challenges

- + How will this effect your functionality and operations (extra clothing, sweat, mud, ice, oil, water, slip risk)
- + Winds
- + Lightning
- + Temperature (heat, cold, humidity)
- + Ice (roads, nacelle & blades)
- + Ice (roads, nacelle & blades)
- + Elements (rain, snow, fog)
- + Uneven Ground
- + Animals (e.g. deer, moose, etc)
- + Road end path conditions (including mud)

Electrical Safety	Hand/body Part Safety	Lifting, Rigging, Strapping
Shock	Sharp Objects	Hard Surfaces
Arc Flash	Pinch Points	Exposed Wires
Blade	Primary Components	Weather (Heat, Snow, Ice, Fog)
Equipment Damage	Crushing	U/L Back Injuries
Shearing Lines	Burns	Loose Items Falling
Stored Energy	Asphyxiation	Transportation
Electrical	Confined Spaces	Gravel Roads
Hydraulic	Over pressurization	Speed Limits
Pneumatic	Exposure	Spilling Materials
Chemical	Exposure	Animals (Locals)
Gravel	Housekeeping	Weather (Heat, Snow, Ice, Fog)
Oil	Organization	Load Capacity
GPS	Tripping	Ergonomics
Generators	Slipping	Pushing
Mechanical Stress	Slipping	Pulling
Pressure	Slipping	Lifting
Working Parts	Falling Objects	Animals (Locals)
Exposed Wires/Arresters	Tools	Weather (Heat, Snow, Ice, Fog)
Area Not	Tools	Load Capacity
Hand Access	Tools	
Crushing	Tools	
Asphyxiation	Tools	
Communications	Emergency Equipment	PPE
Cell Phone/Two-Way	First Aid Kit	Safety Glasses
Emergency Radio	Fire Extinguishers	Eye and Face Protection (acids/alkalis)
Emergency Radio Channel	Decent Device (Thermal)	Fall Protection (harness/lanyards)
Evacuation Route	Eye Wash	Head & Face Protection
Emergency Signals (Red Blue)		Gloves (oil, electrical, chemical)
		Respirator

New Team Member Considerations - Required if "Yes" to Q6

Emergency Call Number / Method Documented and Known by all?

Y N

Emergency Call Number:

New Team Members Qualified and Certified for Task Scope
(Includes Vestas Technician, Loan Labor, DK, or Third Party)?

Y N

New Team Members Compliant with Required Safety Training?

Y N

Confirm Each Team Member has:

Proper PPE?

Y N

Communications (Radio, Channels, etc.)?

Y N

Defined Emergency Response Roles

Y N

(Evacuation, Medical, Equipment Shutdown, Fire Response Coordinators, etc.), Inc. backups?

Pre-Use Inspection / Pre-Activity Preparation (check box with "X" when complete)

Check Standard PPE (both yours and your teammate's) - Including Harness, Lad-safe, Lanyards, Gloves, Helmet, Boots, Eye Wear, Ear Protection

Check Standard Emergency Equipment - Including Fire Extinguisher, Eye Wash, First Aid Kit, Decent Device

Check Electrical Equipment - Including Voltage Gloves, Arc Flash Clothing, Arc Flash Hood, Multimeter, Extension Cords

Check LOTO Equipment - Including Special Devices, Lockbox Inventory (control locks, non-conductive hasps, metal hasps, cable lockout device, breaker lockout devices)

Check Lifting and Rigging Equipment - Including lifting yokes, tag lines, straps, hasps, specialized rigging or tools, etc.

Check Proper Tools (Confirmed, Tested/Calibrated)?

Permits Required: Hot Work Permit # Confined Space Permit # Lift Plan Permit # Other Permit #

Stretching / Warm-up (Back, Arms, Legs) Prior to Climbing / Physical Task Activity

TO BE COMPLETED FOLLOWING WORK ACTIVITY OR RETURN FROM TOWER

Risk/Hazard Source	Prevention Methods Special or additional protocol, test, procedure, PPE, tool, approach, breaks, stretches, etc	LOTO/Risk Prevention Verified (Initials)	LOTO/Risk Prevention measures removed / Ready to run (Initials)
1			
2			
3			
4			
5			
6			

By signing this JSA, the user certifies that they have read and understood the JSA and that they have taken the necessary steps to ensure that the work is performed safely and that they are aware of the risks and hazards associated with the work.

JSA/Task Team Leader Name:

Team Print Name

Team Print Name

Team Print Name

Management/Lead Technician Review/Audit of JSA:

Signature

Signature

Signature

Signature

Date:

DMS 0008-7897-05 July-2010

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VAMEPSE Manual

VESTAS PROPRIETARY NOTICE



PRE-TASK PLANNING WORKSHEET

STOP! PLAN! THEN ACT!

Created on:
Work instruction(s):

Last Modified on:
Turbine Model:

Date:
CIM #:

Description of work:

A. Safety Risk Factors: Please describe control measures in Section B for any item checked off ✓
potential "BIG 5 issues" in bold

Can employee slip or trip?	<input type="checkbox"/>	Is rotating equipment in area?	<input type="checkbox"/>
Can employee fall?	<input type="checkbox"/>	If moving or travelling, is the path free of obstructions?	<input type="checkbox"/>
Can employee strain by pushing, pulling, twisting, lifting?	<input type="checkbox"/>	Are appropriate tools/equipment available, in good condition (and power tools grounded)?	<input type="checkbox"/>
Can employee be exposed to chemicals?	<input type="checkbox"/>	Is barricading and or signage required to protect personnel, facilities or equipment?	<input type="checkbox"/>
Are sources of fire/explosion present?	<input type="checkbox"/>	Do mobile equipment operators have the appropriate certifications?	<input type="checkbox"/>
Is employee near electrical source or working on electrical equipment?	<input type="checkbox"/>	Is lockout / tag out of energized systems required?	<input type="checkbox"/>
Can employee be caught in, on, or between objects?	<input type="checkbox"/>	Are there adequate employees (number and qualifications) to complete the job/task?	<input type="checkbox"/>
		Are you or any coworkers in "the line of fire"	<input type="checkbox"/>
Can an employee's head or body be impacted laterally or vertically?	<input type="checkbox"/>	Is there adequate ventilation?	<input type="checkbox"/>
		Is there adequate ambient lighting?	<input type="checkbox"/>
Are ALL the equipment calibration /certifications current?	<input type="checkbox"/>	Can employee encounter hot or cold objects?	<input type="checkbox"/>
		Do you know where your closest eyewash station is and is it in good condition?	<input type="checkbox"/>
Are any sharp edges present?	<input type="checkbox"/>	Is the clothing being worn rated high enough for the potential calorie of energy exposure level	<input type="checkbox"/>
Is any part of work performed "blind" (are your hands obscured while you're working)?	<input type="checkbox"/>	Do you know where your closest fire extinguisher is and is it in good condition?	<input type="checkbox"/>
		Will any interlocks need to be defeated?	<input type="checkbox"/>
Does the area need to be barricaded to prevent hazard to others?	<input type="checkbox"/>	Is there any work adjacent/near to your work area that may cause a hazard?	<input type="checkbox"/>
		Is there an exposure risk to stored energy? (hydraulic, pneumatic, kinetic, thermal, gravitational, electrical, etc)	<input type="checkbox"/>
Is there potential for material to be thrown out of area?	<input type="checkbox"/>	Are you working alone?	<input type="checkbox"/>
		If manual material handling is required, does material exceed 35 lbs. in weight or have awkward lift?	<input type="checkbox"/>
Is there potential for a spill or leak?	<input type="checkbox"/>	Do you have ability to contact emergency services (cell service in area)	<input type="checkbox"/>
		Will the task involve the use or introduction of hazardous chemicals or new chemicals not previously used?	<input type="checkbox"/>

Possible allergic reactions? (bees, snakes, spiders)	<input type="checkbox"/>	(a) Do you need to have Material Safety Data Sheets reviewed with crew?	<input type="checkbox"/>
Is there a first aid kit available?	<input type="checkbox"/>	Does this task require periodic stretching and/or breaks?	<input type="checkbox"/>

B. DOCUMENT HAZARDS: List IN DETAIL hazards and control measures below for any checked "Yes" answers in "Section A" and any "No" answers on the "Area Familiarization" table below.

Area Familiarization	Yes/No
Locate the closest working phone. Have you verified there is a dial tone/cell service?	
Fire Extinguisher: Is the certificate signed off in current or previous month and pressure in appropriate band?	
Do you know the escape route and know the evacuation assembly area? (Verify unimpeded access to outside)	
Are all appropriate permits completed? (Hot Work, Confined Space, Trenching, Critical lift, etc)	

Work Instruction Reference	Hazard Identified	Method Of Elimination.	Method Of Verification	Initial when Verified

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C. PPE: (Personal Protective Equipment): Are any of the following PPE required to perform task?

Job Specific PPE:	<u>Head</u>	<input type="checkbox"/> side impact	<input type="checkbox"/> PETZL	<input type="checkbox"/> Standard		
	<u>Eye</u>	<input type="checkbox"/> standard	<input type="checkbox"/> goggles	<input type="checkbox"/> welding mask	<input type="checkbox"/> cutting glasses	<input type="checkbox"/> non-conductive spectacles
	<u>Ear</u>	<input type="checkbox"/> plugs	<input type="checkbox"/> muffs	<input type="checkbox"/> both (if over 100 decibels)		
	<u>Foot</u>	<input type="checkbox"/> standard	<input type="checkbox"/> rubber (CSA)	<input type="checkbox"/> electrical (Ohm res.)		
	<u>Face</u>	<input type="checkbox"/> full shield				
	<u>Hands</u>	<input type="checkbox"/> standard	<input type="checkbox"/> Kevlar	<input type="checkbox"/> rubber	<input type="checkbox"/> high voltage	<input type="checkbox"/> propane
	<u>Other</u> <input type="checkbox"/>					
	<u>Respirator</u>	<input type="checkbox"/> Dust Mask	<input type="checkbox"/> Air Purifying	<input type="checkbox"/> Full face	<input type="checkbox"/> Half mask	<input type="checkbox"/> Self Contained Breathing Apparatus (SCBA)
	<u>Body</u>	<input type="checkbox"/> Arc Flash Suit	<input type="checkbox"/> FR clothing	<input type="checkbox"/> Tyvek	<input type="checkbox"/> Chainsaw Chaps	<input type="checkbox"/> Leather Apron
	<u>Sleeves</u>	<input type="checkbox"/> Kevlar	<input type="checkbox"/> Leather	<input type="checkbox"/> Standard		
	<u>Fall Protection</u>	<input type="checkbox"/> standard issue	<input type="checkbox"/> climb gear			
	<u>Other</u> <input type="checkbox"/>					

D. Pre-work Briefing. All persons performing this task must print their name, initials and date.

Name:	Initials:	Date:
Have all affected areas / personnel been notified prior to the commencement of work? (Insert "Yes" after everyone has been notified)		

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E. Signatures

Technician (s): Date:	Regional Manager *if "Big 5" issue*: Date: (write name/time if phone authorization was used)
Vestas Lead or Authorized SME: Date:	Other: Date:

Technology has been made aware of these hazards and recommended WI additions		
	Regional Manager	Date

F. Task Completion – Return to Operational Status. Ensure equipment is returned to safe operational condition. *Please Initial*

Technician (s): Date:	Site HSE Coordinator: Date:
Vestas Lead: Date:	Vestas Manager: Date:

Signing this form only acknowledges awareness of the activity. The maintenance technician is responsible for ensuring that the equipment is returned back to a safe state when the activity is completed or anytime the equipment is left unattended.

Vestas**Safety Walk Template**

DMS 0008-8013 R03

Date: 01-01-2010

Page 1 of 2

Name:	Date of conducted Safety Walk:
Location name:	Conducted in own area (yes,no)
Location representative(s):	

General Comments:

No.	Category*	Positive / Negative (Mark the box)	Observation (Include specific location of observation and task being observed)
1.		<input type="checkbox"/> <input type="checkbox"/>	
2.		<input type="checkbox"/> <input type="checkbox"/>	
3.		<input type="checkbox"/> <input type="checkbox"/>	
4.		<input type="checkbox"/> <input type="checkbox"/>	
5.		<input type="checkbox"/> <input type="checkbox"/>	
6.		<input type="checkbox"/> <input type="checkbox"/>	
7.		<input type="checkbox"/> <input type="checkbox"/>	

* Use category list below as reference:

CATEGORY A	CATEGORY B	CATEGORY C	CATEGORY D	CATEGORY E	CATEGORY F
Personal Protective Equipment	Safe behaviour	Reactions of people	Tools and Equipment	Procedures	Ergonomics/ Physical conditions
Use of PPE, eyes, face, ears, head, hands and arms, feet and legs, respiratory system etc.	Risk awareness, attitude towards safety, taking risks/chances, unnecessary speed and lack of planning before start up etc.	Adjusting personal protective equipment, changing position, rearranging job, stopping job, changing tools etc.	Right for the job, used correctly, in safe condition, maintenance, are user instructions used etc.	Adequate procedures, procedures in place, procedures followed, updated and implemented etc.	Noise, type & number of motions, load handling, work area design, tools & grips, vibration, temperature, dust, lightning etc.
CATEGORY G	CATEGORY H	CATEGORY I	CATEGORY J	CATEGORY K	
House keeping (SS)	Environmental Management	Psychological Work Environment	Management Support/ Communication	Basic Safety	
Obstruction of passageways, organisation of workplace, general house keeping etc.	Chemical storage, waste storage, flammable liquid storage, MSDS available, spill kits, recycling etc.	Atmosphere, stress, harassment etc.	Safety first, management involvement, general communication to the organisation, incident follow-up	Overview of emergency exit, meeting place in case of emergency, fire extinguisher, first aid kit, contact	

	<h2 style="text-align: center;">Safety Walk Template</h2>	<p>DMS 0008-8013 R03 Date: 01-01-2010 Page 2 of 2</p>
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		etc.	numbers etc.
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Safety Walks at Vestas:

Safety Walks provide Managers at Vestas an informal and constructive means of strengthening our Safety Culture. Use this Safety Walk Template to guide and focus your observations of key aspects of workplace safety. As much as possible, reinforce desired behaviour by recognizing co-workers for safe actions and safe working conditions. Safety Walks are not intended to be formal audits or reviews. If possible, avoid writing on this template while you are in front of co-workers. Remember to use the note section to capture additional information. Please write your name clearly on this template so that you receive credit for conducting the Safety Walk.



RESTRICTED TRADE SECRET & CONFIDENTIAL

Extreme Weather Conditions

DMS 0008-7907 R03
Date 2010-July-27
Page 1 of 13

Contents

1. Purpose	2
2. Scope	2
3. Definitions	2
4. Regulatory References	2
5. General Requirements	2
5.1 Localization	2
6. Responsibilities	2
6.1 Service / Construction Managers	2
6.2 Technicians	3
7. Instructions for Extreme Weather Conditions	3
7.1 Cold	3
7.2 Heat	4
7.3 Wet Bulb Globe Temperature Index	5
7.4 Measurement	7
7.5 Heat Stress Best Practices	8
7.6 Heat Specific Procedures	9
7.7 Electrical Storms (Lightning)	9
7.8 Tornadoes / Hurricanes	10
8. History of this Document	11

Vestas American Wind Technology 1881 SW Naito Parkway, Suite 100, Portland, Oregon USA

DMS 0008-7897 R5 09-July-2010

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VAME HSE Manual

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T09 0008-7907 Ver 03 - Approved - Exported from DMS: 2010-07-28 by ASUER



Extreme Weather Conditions

DMS 0008-7907 R03
Date 2010-July-27
Page 2 of 13

1. Purpose

The purpose of this procedure is to ensure a safe work environment prior to and during the performance of work, to prevent exposure to hazards while working in extreme weather conditions, and to identify hazards and restrict work where necessary to ensure the safety of Vestas employees.

2. Scope

Vestas Americas – All locations

3. Definitions

Word:	Definition
Heat	The measure of energy in terms of quantity
JSA	Job Safety Analysis (DMS# 0008-7897)
LCTU	Lightning Current Transfer Units
OSHA	Occupational Safety and Health Administration
PTP	Pre Task Plan

4. Regulatory References

- OSHA Act 1970 Section 5(a)(1)
- OSHA 3156
- OSHA Tech Manual Directive Number: TED 01-00-015

5. General Requirements

5.1 Localization

- 5.1.1 For those areas where this Safety Manual differs from the Vestas Group requirements, this manual shall prevail.
- 5.1.2 In some cases, Vestas Americas has implemented a requirement that may exceed a state or provincial requirement. The higher level requirement in the Safety Manual will prevail.
- 5.1.3 In the event that a state or provincial requirement exceeds a Safety Manual procedure, the higher level requirement will prevail.

6. Responsibilities

6.1 Service / Construction Managers

It is the responsibility of Service and Construction Managers to:



Extreme Weather Conditions

DMS 0008-7907 R03
Date 2010-July-27
Page 3 of 13

- 6.1.1 Recognize environmental and workplace conditions that lead to potential hazards, illnesses or injuries ~~and take measures to mitigate those risks.~~
- 6.1.2 Train the workforce about extreme weather conditions and appropriate actions.
- 6.1.3 Select and supply proper PPE ~~and~~ clothing for applicable weather conditions.
- 6.1.4 At the beginning of the work shift, give an overview of the working conditions and weather concerns to the work group.
- 6.1.5 Allow a period of adjustment to ~~hot~~ weather conditions before embarking on a full work schedule and permit employees to set their own pace and take extra work breaks when needed.
- 6.1.6 Notify the customer under the terms of the customer contract - explain our safety policy regarding hazards ~~and actions taken to mitigate the risks.~~
- 6.1.7 Monitor conditions and update customer as conditions change or if further delays are needed.
- 6.1.8 Once conditions have improved and it is determined that it's safe to work, providing clearance for work and notifying the customer.

6.2 Technicians

The following are the responsibilities of Technicians:

- 6.2.1 If conditions are determined to be unsafe, do not proceed with work; ~~notify your supervisor and note this condition on a Service Report if appropriate.~~
- 6.2.2 If any adverse weather conditions are spotted in your immediate surrounding area, contact the Site Manager immediately.
- 6.2.3 Do not start work in a turbine until the clearance for work has been approved by the Service/Construction Manager or designee.
- 6.2.4 Each crew must acknowledge all warnings either by radio or cell phone.
- 6.2.5 All personnel in the field and towers must be prepared to seek cover on short notice if lightning occurs.
- 6.2.6 Wear the appropriate PPE for the existing and anticipated weather conditions.
- 6.2.7 Complete a JSA (DMS# 0008-7897) and PTP (DMS# 0008-7900) as required to document hazardous conditions and actions.

7. Instructions for Extreme Weather Conditions

7.1 Cold

- ~~7.1.1~~ In regions relatively unaccustomed to winter weather, near freezing temperatures are considered "extreme cold." Whenever temperatures drop decidedly below normal and as wind speed increases, heat can leave your body more rapidly. This weather-related condition known as wind chill or exposure can accelerate the onset of hypothermia and lead to serious health problems. Workers should familiarize themselves with the early symptoms of Hypothermia and be prepared to seek shelter and treatment immediately. The scope of work performed must also be limited dependent upon the specific conditions present. (See Appendix A "Cold Stress Equation") Layer clothing to adjust to changing temperatures and conditions so body core temperature can be maintained without overheating (perspiration).

Extreme Weather Conditions

- 7.1.2 During freezing temperatures with high humidity, ice is likely to accumulate on wind turbine blades and nacelles. This ice can be thrown off blades and / or fall from nacelles (whether the turbines are operating or not) during icing conditions or while the ice is melting. This presents a significant hazard to any personnel working in the area. Special precautions must be taken prior to performing any work on or near any turbine during these conditions.
- 7.1.3 ~~Prior to starting work perform an~~ Ice Check per Pre-Work Ice Checklist (DMS# 0008-7909)
- A visual inspection is to be completed prior to performing work whenever there is a risk of ice build-up on a turbine (binoculars may be necessary).
 - Turbines should be **remotely stopped** before inspection. This will include any turbine not being inspected, but in close proximity to where personnel might be stationed to complete the ice check.
 - Park a minimum of 300' away from the turbine to be inspected (or any other turbine).
 - If the flowchart ends in a "STOP" message (see Pre-Work Ice Checklist (DMS# 0008-7909)), the risk of ice is considered too high for work to safely continue. Notify Lead Tech / Site Manager / Customer of hazardous conditions.
 - If ice is discovered after completion of the ice check (build-up throughout the day, previously unseen ice on nacelle roof, etc.); a look-out ~~must be established~~ before exiting the base of the turbine.
 - The lookout will remain a minimum of 300' away from the turbine, observe through binoculars and advise affected personnel by radio when it appears clear to exit the turbine.
 - If any dangers present themselves during ~~exiting the turbine~~, the lookout will immediately warn the affected personnel via vehicle horn, air horn, radio or other effective means previously established ~~to remain in the turbine~~.

7.2 Heat

Age, weight, degree of physical fitness, degree of acclimatization, metabolism, use of alcohol or drugs, and a variety of medical conditions such as hypertension all affect a person's sensitivity to heat. However, even the type of clothing worn must be considered. Prior heat injury predisposes an individual to additional injury.

It is difficult to predict just who will be affected and when, because individual susceptibility varies. In addition, environmental factors include more than the ambient air temperature. Radiant heat, air movement, conduction, and relative humidity all affect an individual's response to heat. **See Appendix B of this document ("Heat Index Chart").**

7.2.1 Heat disorders and health effects

- Heat Stroke** - Occurs when the body's system of temperature regulation ~~cannot cope with ambient conditions~~ and body temperature rises to critical levels.
Heat stroke is a medical emergency. The primary signs and symptoms of heat stroke are confusion, irrational behavior, loss of consciousness, convulsions, a lack of sweating (usually), hot, dry skin, and an abnormally high body temperature, e.g., of 41°C (105.8°F).
- Heat Exhaustion** - The signs and symptoms of heat exhaustion are headache, nausea, vertigo, weakness, thirst, and giddiness.
This condition responds readily to prompt treatment. Heat exhaustion should not be dismissed lightly; fainting is associated with heat exhaustion. Also, signs and symptoms of heat exhaustion are similar to those of heat stroke.



Extreme Weather Conditions

DMS 0008-7907 R03
Date 2010-July-27
Page 5 of 13

- c) Heat Cramps – Usually caused by performing hard physical labor in a hot environment. These ~~muscle~~ cramps have been attributed to an electrolyte imbalance caused by sweating. Cramps can be caused by both too much and too little salt.
- d) Heat Collapse ("Fainting") - In heat collapse, the brain does not receive enough oxygen because blood pools in the extremities. As a result, the exposed individual may lose consciousness. This reaction is similar to that of heat exhaustion and does not affect the body's heat balance. However, the onset of heat collapse is rapid and unpredictable. To prevent heat collapse, the worker should gradually become acclimatized to the hot environment.
- e) Heat Rashes – Heat rashes are the most common problem in hot work environments. Prickly heat is manifested as red papules and usually appears in areas where the clothing is restrictive. As sweating increases, these papules give rise to a prickling sensation. Prickly heat occurs in skin that is persistently wetted by unevaporated sweat, and heat rash papules may become infected if they are not treated. In most cases, heat rashes will disappear when the affected individual returns to a cool environment.
- f) Heat Fatigue - A factor that predisposes an individual to heat fatigue is lack of acclimatization. The use of a program of acclimatization and training for work in hot environments is advisable. The signs and symptoms of heat fatigue include impaired performance of ~~tasks that require mental alertness or fine motor skills~~. There is no treatment for heat fatigue except to remove the heat stress before a more serious heat-related condition develops.

7.2.2 Workers should not be permitted to work when their deep body temperature exceeds 38°C (100.4°F).

7.3 Wet Bulb Globe Temperature Index

Wet Bulb Globe Temperature (WBGT) should be calculated using the appropriate formula in ~~Equation~~ III: 4-2. The WBGT for continuous all-day or several hour exposures should be averaged over a 60-minute period. Intermittent exposures should be averaged over a 120-minute period.

TABLE III.4.1 ASSESSMENT OF WORK

<i>Body position and movement</i>		<i>kcal/min*</i>
Sitting		0.3
Standing		0.6
Walking		2.0-3.0
Walking uphill		add 0.8 for every meter (yard) rise

Type of work	Average kcal/min	Range kcal/min
Hand work		
Light	0.4	0.2-1.2
Heavy	0.9	
Work: One arm		
Light	1.0	0.7-2.5
Heavy	1.7	
Work: Both arms		
Light	1.5	1.0-3.5
Heavy	2.5	
Work: Whole body		
Light	3.5	2.5-15.0
Moderate	5.0	
Heavy	7.0	
Very heavy	9.0	

* For a "standard" worker of 70 kg body weight (154 lbs) and 1.8m² body surface (19.4 ft²).

Equation III: 4-2. Average Web Bulb Globe Temperature (WBGT)

$$\text{Average}_{\text{WBGT}} = \frac{(\text{WBGT}_1)(t_1) + (\text{WBGT}_2)(t_2) + \dots + (\text{WBGT}_n)(t_n)}{(t_1) + (t_2) + \dots + (t_n)}$$

For indoor and outdoor conditions with no solar load, WBGT is calculated as:

$$\text{WBGT} = 0.7\text{NWB} + 0.3\text{GT}$$

For outdoors with a solar load, WBGT is calculated as:

$$\text{WBGT} = 0.7\text{NWB} + 0.2\text{GT} + 0.1\text{DB}$$

where: WBGT = Wet Bulb Globe Temperature Index
NWB = Nature Wet-Bulb Temperature
DB = Dry-Bulb Temperature
GT = Globe Temperature

The exposure limits in Table III: 4-2 (see below) are valid for employees wearing light clothing. They must be adjusted for the insulation from clothing that impedes sweat evaporation and other body cooling mechanisms. Use Table III: 4-3 (below) to correct Table III: 4-2 (see below) for various kinds of clothing.

Use of Table III: 4-2 (see below) requires knowledge of the WBGT and approximate workload. Workload can be estimated using the data in Table III: 4-1.

Heat Stress Meters (Extech HT30) are available through Grainger (Grainger part number 2LVT5. A).

7.4 Measurement

Portable heat stress meters or monitors are used to measure heat conditions. These instruments can calculate both the indoor and outdoor WBGT index according to established ACGIH Threshold Limit Value equations. With this information and information on the type of work being performed, heat stress meters can determine how long a person can safely work or remain in a particular hot environment.

TABLE III: 4-2. PERMISSIBLE HEAT EXPOSURE THRESHOLD LIMIT VALUE

Work/rest regimen	----- Work Load* -----		
	Light	Moderate	Heavy
Continuous work	30.0°C (86°F)	26.7°C (80°F)	25.0°C (77°F)
75% Work, 25% rest, each hour	30.6°C (87°F)	28.0°C (82°F)	25.9°C (78°F)
50% Work, 50% rest, each hour	31.4°C (89°F)	29.4°C (85°F)	27.9°C (82°F)
25% Work, 75% rest, each hour	32.2°C (90°F)	31.1°C (88°F)	30.0°C (86°F)

*Values are in °C and °F, WBGT. These TLV's are based on the assumption that nearly all acclimatized, fully clothed workers with adequate water and salt intake should be able to function effectively under the given working conditions without exceeding a deep body temperature of 38°C (100.4° F). They are also based on the assumption that the WBGT of the resting place is the same or very close to that of the workplace. Where the WBGT of the work area is different from that of the rest area, a time-weighted average should be used (consult the ACGIH 1992-1993 *Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices* (1992)).

These TLV's apply to physically fit and acclimatized individuals wearing light summer clothing. If heavier clothing that impedes sweat or has a higher insulation value is required, the permissible heat exposure TLV's in Table III: 4-2 must be reduced by the corrections shown in Table III: 4-3.

TABLE III: 4-3. WBGT CORRECTION FACTORS IN °C

Clothing type	Clo* value	WBGT correction
Summer lightweight working clothing	0.6	0
Cotton coveralls	1.0	-2
Winter work clothing	1.4	-4
Water barrier, permeable	1.2	-6

*Clo: Insulation value of clothing. One clo = 5.55 kcal/m²/hr of heat exchange by radiation and convection for each degree °C difference in temperature between the skin and the adjusted dry bulb temperature.

Note: Deleted from the previous version are trade names and "fully encapsulating suit, gloves, boots and hood" including its clo value of 1.2 and WBGT correction of -10.

7.5 Heat Stress Best Practices

- 7.5.1 Utilize engineering controls whenever possible to move and cool the work area (~~ie fans, A/C units, insulating hot surfaces etc.~~)
- 7.5.2 Utilize Auxiliary body cooling devices (see list of VAME HSE APPROVED ITEMS):
 - a) Ice vests
 - b) Wetting clothes
 - c) Water cooled garments
- 7.5.3 Permit workers to drink water at liberty. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. Personnel should not depend on thirst to signal when and how much to drink. Instead, the worker should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in the body lost due to sweat.
- 7.5.4 Establish provisions for a work/rest regimen so that exposure time to high temperatures and/or the work rate is decreased; work-rest cycles give the body an opportunity to get rid of excess heat, slow down the production of internal body heat, and provide greater blood flow to the skin.

7.6 Heat Specific Procedures

- 7.6.1 Heat Stroke – Contact supervisor immediately and call 911
 - a) Move person to a cool place indoors or under a shady tree. Place feet higher than head to avoid shock.
- 7.6.2 Heat Exhaustion.
 - a) Move to a cool place indoors or in the shade. Lie down.
 - b) Loosen clothing.
 - c) Drink fluids, such as cool or cold water. Add 1/2 teaspoon of salt to 1 quart of water. Sip this, or drink sport drinks, such as Gatorade, etc.
 - d) Have salty foods, such as saltine crackers, if you tolerate them.
 - e) Massage and stretch cramped muscles.
 - f) Remove clothing. Wrap person in cold, wet sheet, sponge with towels or sheets soaked in cold water, or spray person with cool water. Fan the person to promote evaporative cooling.
 - g) Put ice packs or cold compresses on neck, under armpits, and on the groin area.
 - h) Do not give fever reducing medicine.

7.7 Electrical Storms (Lightning)

In the event of lightning, the following guidelines are to be followed and enforced by all Vestas Americas field employees. During an electrical storm, there is a risk of lightning striking the turbine, which brings about danger of electrical shock to anyone in close proximity to the turbine.

- 7.7.1 All sites must have a way of monitoring for risk of lightning strikes. Sites located in areas of frequent lightning activity should consider a commercial weather alert service.
- 7.7.2 Ensure no personnel are permitted to be in or around a turbine during a lightning storm. During an electric storm, there is a risk of serious injury or death as a result of lightning striking a turbine.

- 7.7.3 Sites with lightning advisory system installed at site (e.g.: LDSS, weather detection radar system, etc.) shall issue a lightning advisory for any lightning strikes within a 30 mile radius. Site manager will alert all technicians/subcontractors of the strike and evacuate the turbines. The advisory shall remain in effect until 30 minutes after the last known strike is reported ~~within the 30 mile radius.~~
- 7.7.4 Sites without a lightning advisory system installed at site shall issue a lightning advisory for any lightning strikes within a 60 mile radius. Site manager will alert all technicians/subcontractors of the strike and evacuate the turbines. The advisory shall remain in effect until 30 minutes after the last known strike is reported.
- 7.7.5 All personnel in the field and at the towers need to be prepared to seek cover on short notice.
- 7.7.6 If lightning ~~activity has stopped but there is still severe weather~~ in the area, the site manager has authority to keep the lightning stand down in effect until he/she feels it is safe to resume normal operation.
- 7.7.7 Hub Entry is restricted if LCTU (Lightning Current Transfer Unit) "pucks" are popping. Work in the Nacelle is permitted ONLY if WKI 961248 is followed (only use most current version). Discharge of static electricity includes following precautions:
 - a) **Do not** touch the lightning conductors on the blade before the blade is discharged.
 - b) Discharge the blade with grounding cables/jump start cable as described in WKI 961248.
 - c) Wear appropriate electrical HV gloves when working on installation of grounding straps.

7.8 Tornadoes / Hurricanes

A tornado is defined as a violently rotating column of air extending from a thunderstorm to the ground. The most violent tornadoes are capable of tremendous destruction with wind speeds of 250 mph or more. Damage paths can be in excess of one mile wide and 50 miles long.

A hurricane is a type of tropical cyclone, the generic term for a low pressure system that generally forms in the tropics. A typical cyclone is accompanied by thunderstorms, and in the Northern Hemisphere, a counterclockwise circulation of winds near the earth's surface. All Atlantic and Gulf of Mexico coastal areas are subject to hurricanes or tropical storms. Parts of the Southwest United States and the Pacific Coast experience heavy rains and floods each year from hurricanes spawned off Mexico. The Atlantic hurricane season lasts from June to November, with the peak season from mid-August to late October.

- 7.8.1 **Tornado Watch:** A tornado watch is issued when weather conditions are favorable for the development of severe thunderstorms that are capable of producing tornadoes. If a watch is issued, be prepared to take cover in the event a tornado warning is issued or if a tornado is spotted.
- 7.8.2 **Tornado warning:** A tornado warning is an alert issued by government weather services to warn an area that a tornado may be imminent. It can be issued after either a tornado or funnel cloud has been spotted, or if there are radar indications that a tornado may be possible. If a tornado warning is issued, seek shelter immediately.
- 7.8.3 **Hurricane warning:** This is a communication issued by NOAA whenever a hurricane is between 12 and 24 hours from and approaching the U.S. coast and comprises an area approximately 50 miles either side of the expected place where the hurricane will strike coastal areas. This warning also gives the expected time and location where the hurricane will strike the coast, as well as the size, maximum winds, direction, and the speed of travel.

The warning may also describe where high water (storm surge), floods or high waves can be expected.

- a) For sites that may be affected by hurricanes, a preparedness plan shall be established. All Local, State and Federal rules and regulations shall be followed. During hurricane season, a hurricane-tracking map will be kept in the management and safety areas.

7.8.4 Hurricane Preparedness Team:

- a) Shall consist of sufficient numbers to physically complete its task;
- b) Shall have employees who are familiar with the Hurricane Preparedness Plan to fill in for essential team members in the event team members are not present;
- c) Shall have a designated primary and secondary team manager for the Hurricane Preparedness Team;
- d) Shall maintain a detailed list of assets that will be removed from site in the event of evacuation;
- e) Shall maintain a list of vehicles and personnel that will be utilized to evacuate assets; and
- f) Shall pre-determine the state the turbines will be placed in during a hurricane and evaluate a "safe to return" inspection of the site.

- 7.8.5 The Team leaders shall designate appropriate emergency supplies and storage place. The team shall review the current year FEMA Emergency Management Guide for Business & Industry (www.fema.gov/business/guide/index.shtm).

8. History of this Document

Rev. no.:	Date:	Description of changes
00	2005-Sep-26	First edition - Reformatted & new number 13-Apr-2007
01	2010-Jan-01	Content regarding extreme weather conditions added. Title changed from "Snow and Ice Hazards" to "Extreme Weather Conditions".
02	2010-July-09	Major revision to include all extreme weather conditions.
03	2010-July-27	General process updates. Tables III: 4-1 and III: 4-3 updated. Section 7.4.5 deleted.



Extreme Weather Conditions

DMS 0008-7907 R03
Date 2010-July-27
Page 12 of 13

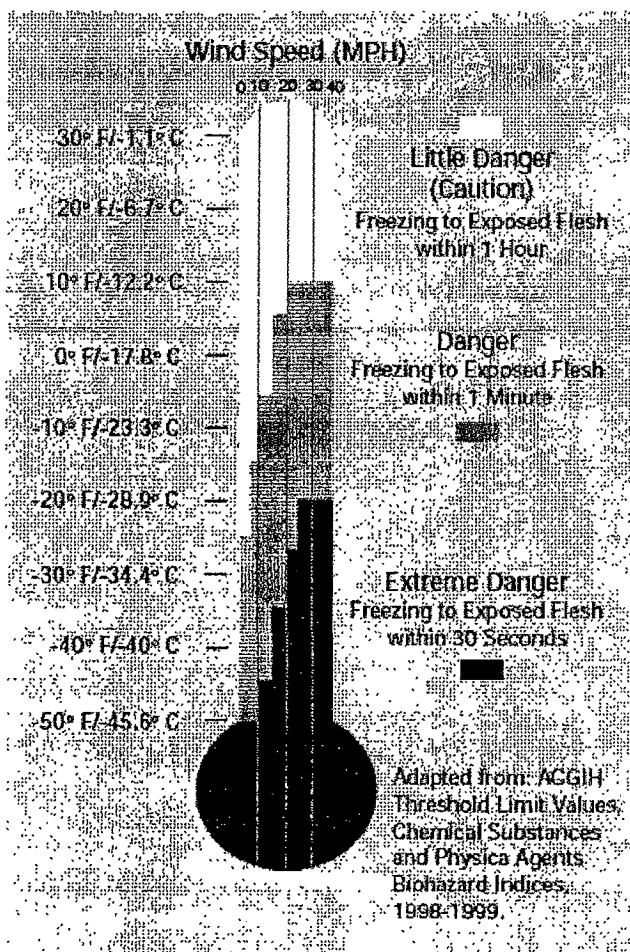
Appendix A (Cold Stress Equation)

THE COLD STRESS EQUATION

LOW TEMPERATURE + WIND SPEED + WETNESS = INJURIES & ILLNESS

When the body is unable to warm itself, serious cold-related illnesses and injuries may occur, and permanent tissue damage and death may result.

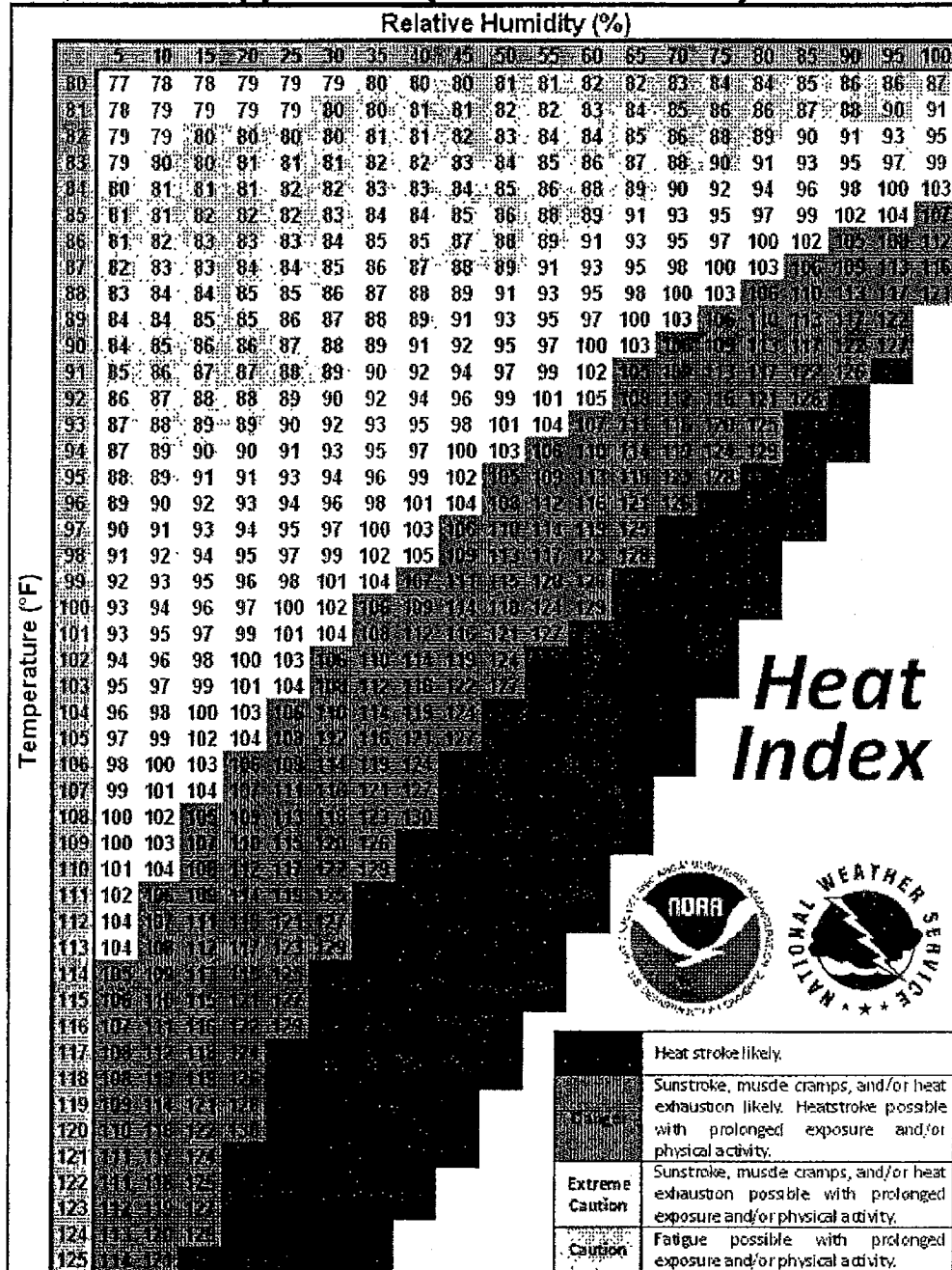
Hypothermia can occur when *land temperatures* are above freezing or *water temperatures* are below 98.6°F/ 37°C. Cold-related illnesses can slowly overcome a person who has been chilled by low temperatures, brisk winds, or wet clothing.



U.S. Department of Labor
Occupational Safety and Health Administration

OSHA 3156
1998

Appendix B (Heat Index Chart)



TRADE SECRET & CONFIDENTIAL



RESTRICTED TRADE SECRET & CONFIDENTIAL

Pre-Work Ice Checklist

DMS 0008-7909 R02
Date 2010-01-01
Page 1 of 3

Contents

1. Process Flowchart.....	2
2. Guidelines	3



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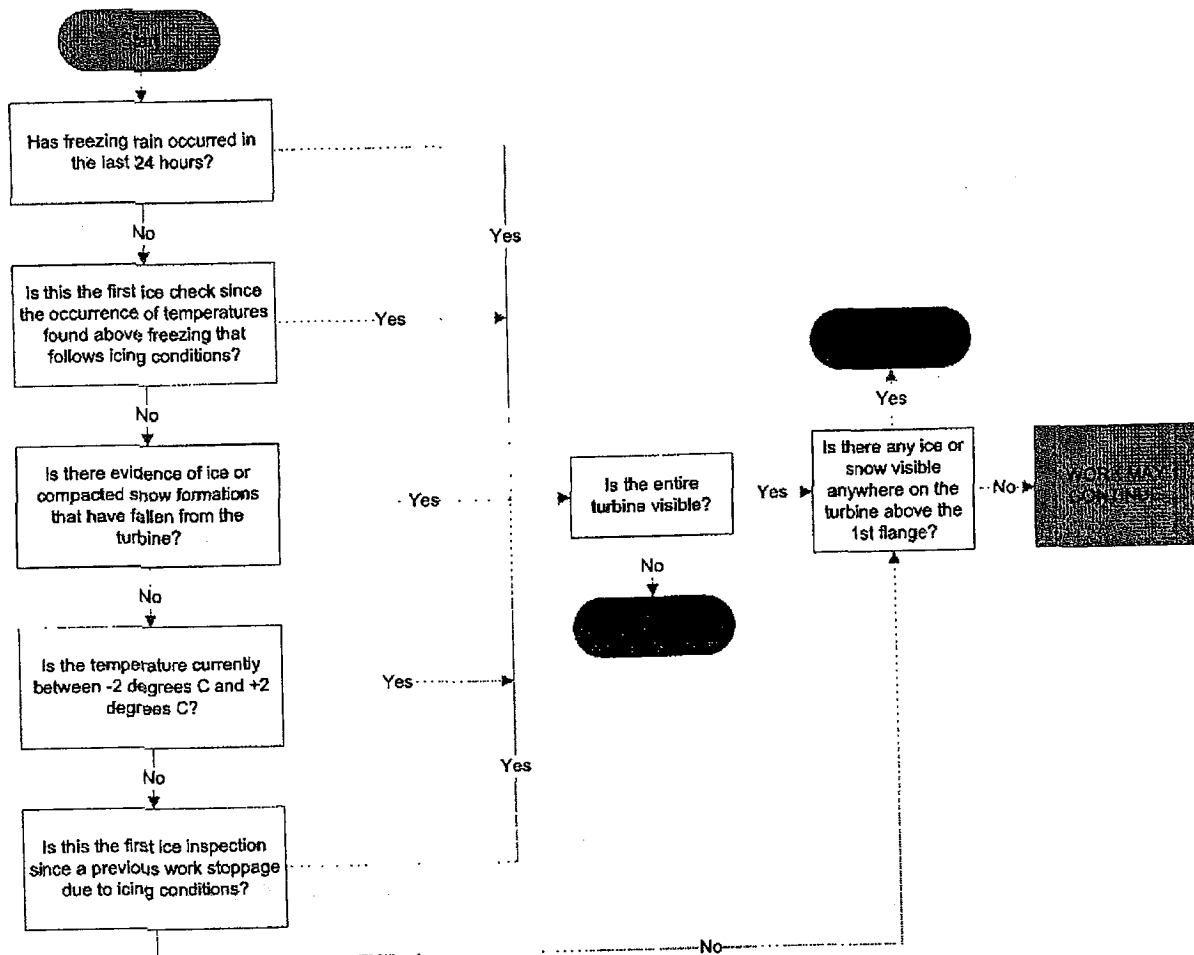
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VAME HSE Manual

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T09 0008-7909 Ver 02 - Approved - Exported from DMS: 2010-04-07 by ASUER

1. Process Flowchart





Pre-Work Ice Checklist

2. Guidelines

The following guidelines should be followed to safely perform an ice check:

- Turbines should be **remotely stopped** before inspection. This will include any turbine not being inspected, but in close proximity to where personnel might be stationed to complete the ice check. (Close proximity = 1000')
- Park a minimum of 300' away from the turbine to be inspected (or any other turbine).
- Use binoculars or other magnifying visual aids to effectively inspect the turbine.
- If the flowchart ends in a "STOP" message, the risk of ice is considered too high for work to safely continue. Notify Lead Tech / Site Manager / Customer of hazardous conditions.

If ice is discovered *after* completion of the ice check (build-up throughout the day, previously unseen ice on nacelle roof, etc.), work is to stop **immediately**, all affected personnel are to climb down-tower and a look-out will be obtained *before* exiting the base of the turbine. The lookout will remain a minimum of 300' away from the turbine, observe through binoculars and advise affected personnel by radio when it appears clear to exit the turbine. If any dangers present themselves during evacuation, the lookout will immediately warn the affected personnel via vehicle horn, air horn, radio or other effective means to be previously established.

TRADE SECRET & CONFIDENTIAL



Vestas Americas Emergency Response Plan (ERP) Template

DMS 0008-7901
R02
Date: 01-Jan-2010
Page 1 of 5

Site Name

Site Office Address
Site Office Longitude and Latitude
Site Office Phone Number

Emergency Contacts

IN AN EMERGENCY, DIAL XXX/XXX-XXXX

Local Emergency Contact Number:

Local Law Enforcement:

Name, Sheriff
Address
Phone Number

Medical Center:

Address
Phone Number

Customer's Office:

Address
Phone Number

Fire & Emergency Services (Transport):

Address
Phone Number

Helicopter Service:

Name
Address
Phone Number

Attach a copy of the map to the Medical Care Facility(s) as appropriate.

Critical Contact Information - Customer and Vestas Service Site

Customer O&M Building:

Office

Customer O&M Manager:

Name
Office
Cell Phone Number

Customer Rep:

Name
Office
Cell Phone Number

Vestas Site Office Coordinator:

Name
Office
Cell Phone Number
Email

Vestas Site Manager:

Name
Office

Vestas Lead Technician:

Name
Office
Cell Phone Number
Email

HSE Coordinator:

Name
Office
Cell Phone Number
Email



Vestas Americas Emergency Response Plan (ERP) Template

DMS 0008-7901
R02
Date: 01-Jan-2010
Page 2 of 5

Specific Tower Siting:

In this section, please remove example and add all towers' longitude and latitude locations.

Site Name:

B-15: N45 39' 15" W119 29' 13"
B-16: N45 39' 8" W119 29' 5"
B-17: N45 39' 1" W119 28' 5"
B-18: N45 38' 55" W119 28' 51"
B-19: N45 38' 48" W119 28' 43"
B-20: N45 38' 41" W119 28' 36"
B-21: N45 38' 34" W119 28' 28"
B-22: N45 38' 28" W119 28' 21"
B-23: N45 38' 21" W119 28' 13"
C-17: N45 39' 30" W119 28' 7"
C-18: N45 39' 24" W119 28' 00"
C-19: N45 39' 17" W119 27' 53"
C-20: N45 39' 11" W119 27' 45"
C-21: N45 39' 4" W119 27' 38"

T-4: N45 40' 29" W119 56' 4"
T-5: N45 40' 33" W119 56' 15"
T-6: N45 40' 39" W119 56' 20"
T-7: N45 40' 44" W119 56' 23"
T-8: N45 40' 49" W119 56' 27"
T-9: N45 40' 56" W119 56' 32"

ERP Rally Points:

Emergency Assembly Areas: The place where site employees will gather during an emergency or after a disaster to take roll, organize rescue, first aid, and support teams. Designate a primary and secondary EAP for your site. Attach a map with these areas clearly marked:

Location #1:

Location #2:

Emergency Routes / Exits (attach map of site AND building floor plan, indicating emergency escape routes and exits, and locations of fire extinguishers, first aid kits, eyewash stations or showers, etc.):

ON-SCENE SUPERVISOR: TAKE HEAD COUNT AT ERP RALLY POINT AND IMMEDIATELY REPORT TO MANAGEMENT



Vestas Americas Emergency Response Plan (ERP) Template

DMS 0008-7901
R02
Date: 01-Jan-2010
Page 3 of 5

Shelter for Severe Weather Events/Earthquakes

Employees should move to an interior, windowless room on the main or lower floor as quickly as possible. If time does not allow for movement, cover should be taken away from glass and under protective items such as sturdy desks. Once individuals have reached the shelter locations, they should assume a seated position on the floor with their heads down and their hands over their heads or place themselves under a desk. If they are wearing heavy clothing or have access to heavy clothing, they should use these items to cover their upper bodies and heads. Hallways and enclosed stairwells are also acceptable shelter areas. Once the disaster area is stabilized, exit from the building to the Emergency Assembly Point.

1. Proceed to the nearest Emergency Shelter - assist those who request your help if you can.
2. Stay with other people in the area if you cannot evacuate.
3. Report to the Primary Assembly Point - DO NOT LEAVE unless it becomes unsafe to stay.
4. Check In with the Emergency Coordinator and notify the Site Management.
5. Wait for further instruction or All Clear (clearance to re-enter).

On-site Emergency Shelter Location #1:

On-site Emergency Shelter Location #2:

Emergency Response Supplies

Emergency Response Supplies include First Aid/CPR/BBP kits, Fire Extinguishers, Eyewash Stations, Tower Rescue Devices, Spill Cleanup Kits, etc. - Emergency response supplies are also kept in Service Vehicles.

Monthly Inspection Completed by:

Location of Nearest Equipment

Telephone:

First Aid Kit:

Eye Wash or Shower:

Spill Kit:

Rescue Device:

Chemical Inventory & MSDS Binder:

Safety Manual:



Vestas Americas Emergency Response Plan (ERP) Template

DMS 0008-7901
R02
Date: 01-Jan-2010
Page 4 of 5

Emergency Response Team

Emergency Response Team - Trained in CPR/First Aid/Fire Safety, Spill Response, etc.

Name:	Title:
24 Hour Contact Numbers:	

Name:	Title:
24 Hour Contact Numbers:	

Name:	Title:
24 Hour Contact Numbers:	

Name:	Title:
24 Hour Contact Numbers:	

Evacuation Signal: General Alarm Signal to Evacuate:

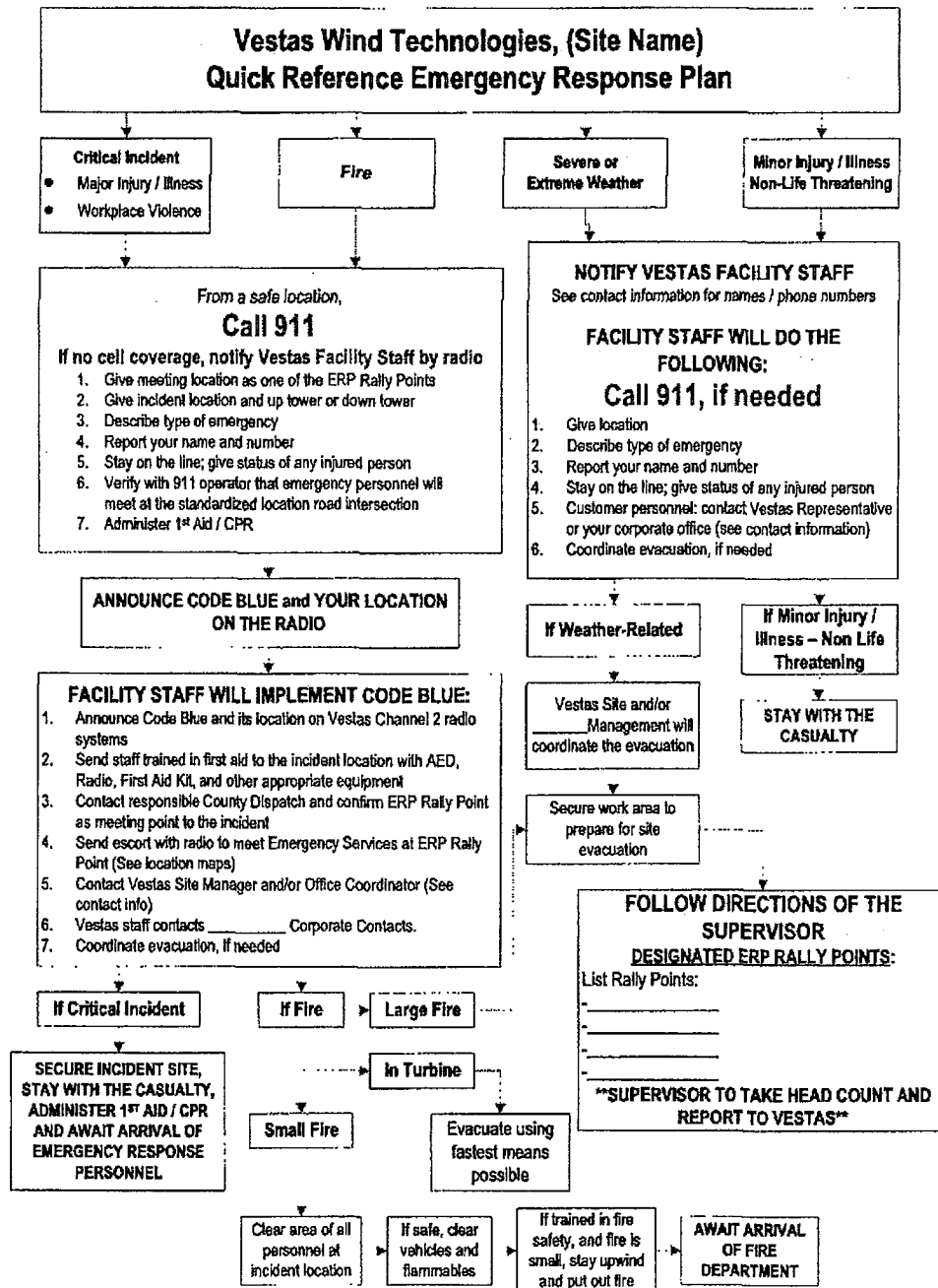
--

Semi-annual drills will be practiced and documented on Safety Meeting Attendance Record (SMARs) so employees become better prepared for real emergencies and so that any deficiencies in the plan can be identified and corrected.



Vestas Americas Emergency Response Plan (ERP) Template

DMS 0008-7901
R02
Date: 01-Jan-2010
Page 5 of 5



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Emergency Response Equipment - Monthly Checklist

VESTA

2010

SITE/PROJECT: _____

INSPECTOR (s): _____

SITE SUPERVISOR: _____

EXTINGUISHERS (■ = Month for Annual Professional Inspection):

Inspector shall enter initials in box after each monthly inspection

ID#	Location	MFR	Style/Model #	Size/SN	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1																
2																
3																
4																
5																
6																
7																
8																

Contact Info for Annual Professional Fire Inspection:

EYEWASH STATIONS (wall mounted)

Inspector shall enter initials in box after each monthly inspection

ID#	Location	MFR	Style/Model #	Size/SN	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1																
2																

FIRST AID KITS

Inspector Shall Enter Initials In Box After Each Monthly Inspection

ID#	Location	MFR	Style/Model #	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1															
2															
3															
4															
5															
6															

VEHICLES - Incident forms, Eyewash Bottles, Spill Kit,

Fire Extinguisher, Emergency Response Kit:

Inspector shall enter initials in box after each monthly inspection

ID#	Make/Model	Year	Assigned to	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1															
2															
3															
4															
5															
6															
7															
8															
9															
10															
11															
12															

*Service Vehicles are equipped with: (1) Copy of Emergency Response Plan - site specific plan, (1) Fire Extinguisher, (1) small First Aid Kit w/ Incident Report Forms, (2) 32 oz bottles of Eyewash, (1) Disposable Emergency Blanket, and other site hazard specific items (i.e. snake bite kits).

*At year end, file this sheet in the Site Safety Records, Inspections - Emergency Response Equipment. Update/reprint if equipment is added or RFS (RFS = Removed From Service).

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Descent Device Inspection Record

Vestas

SITE: _____ LOCATION: _____
 INSPECTOR NAME: _____ SIGNATURE: _____
 DATE OF THIS INSPECTION: _____ DATE OF NEXT INSPECTION: _____

*A Tower Descent Device is designed for ready availability/emergency use and must be checked after EVERY unpacking/use.
 This device MUST BE INSPECTED ANNUALLY by an authorized person.
 All documented inspections of this equipment shall be filed in the Site Safety Records.*

DESCENT DEVICE INFORMATION:

MAKE/MODEL NUMBER: _____
 SERIAL # or IDENTIFYING MARK(s): _____

INSPECTION CHECKLIST (X if no defect, and/or comment. Attach a Safety Equipment Defect form to promptly address any noted defects):
 1 ROPE - Visually inspect the entire length of the rope for cuts, areas of excessive chafing, soft or hard spots, glazed or melted surface areas, discolorations or variations in diameter. Along with this visual inspection, feel the rope to detect possible damage to the core. Pay special attention to any areas that may have been knotted or that were drawn over or against edges. Putting tension on the rope can help you feel irregularities. Some wear to the sheath is normal, but when 50% of the fibers at any point on the sheath are worn through, the rope must be retired from service.

a. Length of rope: _____
 b. Free of ruptures ☐ _____
 c. Free of holes on the sheath ☐ _____
 d. Free of knots ☐ _____
 e. Free of kinks ☐ _____
 f. No deformities ☐ _____

2 METAL COMPONENTS:

a. Free of corrosion ☐ _____
 b. Free of defects or flaws ☐ _____
 c. Functions correctly ☐ _____
 d. Fasteners secure and tight ☐ _____

3 MECHANICAL CHECK (After visually inspecting the rope and metal components, check the brake mechanism by pulling the rope forwards and backwards through the brake unit):

a. Device is operational ☐ _____
 b. Resistance occurs when rope is pulled ☐ _____

REPACKING FOR STORAGE (If the unit is wet after use, all metal components should be wiped dry with a clean dry cloth, and allowed to dry thoroughly at room temperature, protected from light, and never in a hot cabinet, boiler room or likewise. Also note, the brake vents must be closed when the device is stored. Immediately after the inspection, the equipment must be repacked into the carry bag as follows):

- Pull the rope through the brake unit on one end of the rope with the snap hook hanging approximately 30 cm from the brake unit.
- The long end of the rope will be packed (wound) into the bag with the attachment snap hook first.
- The rope is packed (wound) into the bag on top of the snap hook.
- After each ten windings, press the rope with your hand to compress in the bag.
- Repeat steps 2 and 3 until the entire length of the rope is packed into the bag.
- Place the descent device on top of the packed rope.
- Cinch the bag closed and return the device to its proper storage area, protected from sunlight.
- Complete the inspection form and file in the Site Safety Records.
- If any deficiencies are noted, complete and attach a Safety Equipment Defect form.

COMMENTS:

Completed original should be filed in Site Safety Records. If item is removed from service - note and date on Site Safety Equipment Register.

TRADE SECRET & CONFIDENTIAL



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
Health Safety Environment
Incident Report

DMS 0008-7917
R03
Date: 2010-01-01
Page 1 of 3

Incident Date:

Time:

Location:

Site Office:

Supervisor:

Park:

WTG Pad#:

Customer:

Select Incident and Dept. Categories: (check as applicable)

- | | |
|---|---|
| <input type="checkbox"/> Health/Personal Injury | <input type="checkbox"/> Service |
| <input type="checkbox"/> WTG/Equipment/Vehicle Damage | <input type="checkbox"/> Projects |
| <input type="checkbox"/> Environmental | <input type="checkbox"/> Resource Group/CIM |
| <input type="checkbox"/> Near Miss | |

Hazards/Risks Involved in Incident: (check as many as applicable)

- | | | |
|--|---|---|
| <input type="checkbox"/> Lifting/Strain/Rigging | <input type="checkbox"/> Chemical Exposure | <input type="checkbox"/> Electrical (Shock/Arc Flash) |
| <input type="checkbox"/> Weather (Hot/Cold/Wet) | <input type="checkbox"/> Vehicles/Transport | <input type="checkbox"/> Asphyxiation |
| <input type="checkbox"/> Stored Energy - Elect/Hyd | <input type="checkbox"/> Crushing | <input type="checkbox"/> Fall (Person/Tool/Object) |
| <input type="checkbox"/> Repetitive Strain | <input type="checkbox"/> Slips | <input type="checkbox"/> Fire |
| <input type="checkbox"/> Other | | |

☐ PPE in Use? List:

High Level Summary:

Associated Actions/Events:

Prior to Incident:

Incident:

After Incident:



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
Health Safety Environment
Incident Report

DMS 0008-7917
R03
Date: 2010-01-01
Page 2 of 3

Incident Date:
Park:

Site Office:
WTG Pad/#:

Documentation (hard/scanned copies attached as checked):

- ☐ Work Instructions in use
- ☐ JHA in use
- ☐ OSHA/WCB documents
- ☐ Driver's License/Relevant Certifications
- ☐ Other
- ☐ No Documents attached

Explain:

Photographs:

Copy and Paste with Labels as needed:



Paste
Photo Here

Photo A – description, direction of view, wide view



Paste
Photo Here

Photo B – description, direction of view, medium view



Paste
Photo Here

Photo C – description, direction of view, narrow view



Paste
Photo Here

Photo D – description, direction of view, photo of injury/damage



Paste
Photo Here

Photo E – description, direction of view, photo of risk elimination reduction

Photo F – etc... as needed



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
Health Safety Environment
Incident Report

DMS 0008-7917
R03
Date: 2010-01-01
Page 3 of 3

Incident Date:
Park:

Site Office:
WTG Pad#:

Site Findings:

Primary Cause(s):

Contributing Factor(s):

Options to Prevent Future Occurrences:

Eliminate the Risk:

Protect against Risk:

Protect Worker:

Site Recommendations:

Further Comments:

Report Prepared by:

Date:

Report Reviewed by:

Date:

Report Approved by:

Date:

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HSE Witness Statement**Vestas****I. Witness Information**Name
and
Address

Employer:

Employee ID:

Hire Date:

Immediate Supervisor:

Job Title:

Home Contact Phone:

Work Contact Phone:

II. Incident Information

Date

Time

AM / PM

Worksite

Describe what you were doing at the time the incident occurred:

Describe what attracted your attention to the incident:

Describe what you saw and heard, in chronological order:

Events Before

Incident Event

Events After

I certify that this statement is true and accurate to the best of my recollection.

Employee Signature

Date

TRADE SECRET & CONFIDENTIAL



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DMS 0008-8015 R01
Date: 2010-01-01
Page 1 of 1

Release to Return to Work

Return form to:

Name of worker:

Claim number:

Please complete the following information and return to us at the address indicated above.

1. Is the worker medically stationary? ☐ Yes ☐ No Date _____
Next scheduled appointment date _____

2. Worker is released to:

- ☐ full duty without limitations Date _____ (Do not complete lines 3 through 11. Sign below.)
☐ modified duty from (date) _____ through (date) _____ (specify limitations below.)
☐ modified hours — specify _____ from (date) _____ through (date) _____

- Hours: No limitations 1 2 3 4 5 6 7 8
3. In an eight-hour workday, worker can stand/walk a total of _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
4. At one time, worker can stand/walk _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
5. In an eight-hour workday, worker can sit a total of _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐
6. At one time, worker can sit _____ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

7. The worker is released to return to work in the following range for lifting, carrying, pushing/pulling:

Pounds	<10	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	>100
Occasionally	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Frequently	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. Worker can use hands for repetitive:

- a. Fine manipulation
b. Pushing and pulling
c. Simple grasping
d. Keyboarding

Right
☐ Yes ☐ No
☐ Yes ☐ No
☐ Yes ☐ No
☐ Yes ☐ No

Left
☐ Yes ☐ No
☐ Yes ☐ No
☐ Yes ☐ No
☐ Yes ☐ No

Dominant hand
☐ Right ☐ Left

9. Worker can use feet for repetitive raising and pushing (as in operating foot controls): ☐ Yes ☐ No

10. Worker is able to:
- | | Continuous
67-100% of the day | Frequently
34-66% of the day | Occasionally
6-33% of the day | Intermittently
1-5% of the day | Not at all |
|---------------|----------------------------------|---------------------------------|----------------------------------|-----------------------------------|--------------------------|
| a. Stoop/bend | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Crouch | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Crawl | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Kneel | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Twist | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Climb | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Balance | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| h. Reach | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| i. Push/pull | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

11. Other functional limitations or modifications necessary in worker's employment:

Additional comments may be written on back of form.

Signature of physician

Physician's typed name

Date

TRADE SECRET & CONFIDENTIAL



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 1 of 27

Contents

1. Environmental, Health & Safety (EHS) Goals and Expectations	3
2. Federal and Provincial Health & Safety Compliance	3
3. Site Safety Representative.....	4
4. Program Policies, Practices and Procedures	5
5. EH&S Discipline Policy	5
5.1 First Step: Verbal Warning.....	5
5.2 Second Step: Written Warning.....	6
5.3 Third Step: Immediate Removal	6
6. Drug and Alcohol Free Workplace Program	6
6.1 Subcontractor Drug and Alcohol Free Workplace Program Scope.....	7
6.2 Drug and Alcohol Testing	7
6.3 Random Drug and Alcohol Testing	8
6.4 Reasonable Cause and Post Incident Drug and Alcohol Testing	8
6.5 Follow up Testing	9
6.6 Mandatory Disclosure	9
6.7 Accommodation.....	9
6.8 Ensuring Compliance.....	10
6.9 Positive Test Results	10
6.10 Financial Obligations	10
6.11 Subcontractor Non-Compliance	11
7. Training Requirements.....	11
7.1 New-Hire Safety Orientation	11
7.2 First Aid/CPR.....	11
7.3 Workplace Hazardous Materials Information System (WHMIS)	11
7.4 Transportation of Dangerous Goods (TDG).....	11
7.5 Confined Space Entry.....	12
7.6 Equipment Training	12
7.7 Hazard Specific Training.....	12
7.8 Foreman Training/Meetings	12
7.9 Subcontractor Assistance	12
7.10 Training/Meeting Matrix	12
8. Meeting Requirements	13
8.1 Vestas - CWT Weekly Safety Meeting	13
8.2 Subcontractor Weekly Tailgate/Tool Box Safety Meeting.....	13
8.3 Training/Meeting Matrix	13
9. Documentation	13
9.1 Daily Injury and Illness Reporting.....	13



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 2 of 27

9.2	First Aid Log	13
9.3	Incident Report	13
9.4	Weekly Safety Meeting Minutes	13
9.5	Material Safety Data Sheets (MSDS)	14
9.6	Phased Safety Plan	14
9.7	Daily Diaries	14
10.	Incident, Injury and Emergency Procedures	14
10.1	Incidents and Injury Reporting	14
10.2	Medical Treatment	14
10.3	Early Return to Work	15
10.4	Incident Investigation, Review and Report Out	15
10.5	Injury Management	15
10.6	Emergency Response Plan	15
11.	Personal Protective Equipment	15
12.	Fall Protection	16
13.	Housekeeping	17
14.	Additional Program Requirements	17
15.	Attachments	19
15.1	Attachment S-1 - Subcontractor Checklist	20
15.2	Attachment S-2 - Training/Meeting Matrix	21
15.3	Attachment S-3 - Job Hazard Analysis	22
15.4	Attachment S-4 - Subcontractor Daily Job Diary	23
15.5	Attachment S-5 - Environmental, Health & Safety (EHS) Orientation Checklist	24
15.6	Attachment S-6 - Exhibit "S" Subcontractor Acknowledgement and Agreement	26
16.	History of this Document	27

1. Environmental, Health & Safety (EHS) Goals and Expectations

Vestas - Canadian Wind Technology, Inc. expects and requires that the subcontractor develop and implement EHS programs and management systems that accomplish the following:

- Encourage, promote, and establish goals and expectations that the subcontractor and its subcontractors, suppliers, and all their respective employees, agents and representatives will enter into this project with a desire to create and maintain an Injury Free Workplace and a working environment that recognizes the well-being of the people working at the project site and the need to protect the environment from activities at the project site;
- Establish and maintain management commitment, resources, training, site supervision and personnel that not only provide quality work, but also place the safety and well being of the people working at the project site and the protection of the environment from activities at the project site on an uncompromisable standard;
- The subcontractor shall comply with the suggestions and requirements set forth in these Subcontractor Environmental, Health and Safety Requirements (herein "Exhibit S"). The subcontractor is further obligated and responsible to ensure its employees and representatives that enter onto the project site, embrace the above goals and expectations, and comply with the requirements set forth in this document;
- Subcontractor non-compliance with this document may result in cancellation, termination, or suspension of the subcontract, in whole or in part, and allow Vestas - Canadian Wind Technology, Inc. to complete the work at the subcontractor's cost;
- The subcontractor shall include the provisions of Exhibit "S" in every subcontract with its subcontractors, and its subcontractors shall extend this requirement to their subcontractors; and
- At minimum, the subcontractor environmental, health and safety programs shall meet or exceed the requirements outlined in this document. Where conflicts occur, the most stringent provision shall apply.

2. Federal and Provincial Health & Safety Compliance

The subcontractor, and its employees and representatives, will comply with all applicable federal and provincial environmental, health and safety legislation applicable to the project location.

(Note: When the above standards are exceeded by Vestas - CWT in this Exhibit "S", and/or in other Vestas - CWT environmental, health and safety practices and procedures, the subcontractor, and its employees and representatives, will comply with those higher standards.)

3. Site Safety Representative

- 3.1 Subcontractors performing work at the project site, with less than ten employees will designate a Site Safety Representative. The assigned Safety Representative may be a supervisor, foreman, or working member of the crew. This Safety Representative is directly responsible for implementing and maintaining the project site-specific subcontractor environmental, health and safety programs (see section 4.0), which are designed to meet the goals and expectations of, and the suggestions and requirements set forth in these Subcontractor Environmental, Health & Safety Requirements. At minimum, the Safety Representative is authorized to stop work when an imminent danger situation exists. Additionally, this person may be authorized to implement changes regarding the subcontractor environmental, health and safety programs and their administration, quality of life issues, unsafe acts and conditions, employee non-compliance, disciplinary and last chance programs.
- 3.2 When a subcontractor has ten or more employees on the project site, in addition to the requirements in paragraph 3.1, a subcontractor safety professional will be available to respond to project safety and health issues. This safety professional, which may be the subcontractor's safety director, manager or safety consultant, is not required to be on site full time. The safety professional's responsibility includes assisting the subcontractor's site superintendent or general foreman, and site safety representative in implementing and maintaining the site-specific subcontractor environmental, health and safety process, designed to meet the goals, expectations, and requirements outlined in this document. Vestas - CWT prior to subcontractor's start-up of work will provide the safety professional's point of contact information.
- 3.3 The subcontractor safety representative shall provide quality safety training programs for subcontractor employees and representatives, and implement protective measures to prevent damage, injury, or loss to its employees and representatives performing work at the project site, as well as other impacted persons in the subcontractor's area of responsibility.
- 3.4 If the project requires the staffing of a full-time subcontractor safety representative, the qualifications of the selected individual will be submitted in writing to the Vestas Safety Manager. If during the course of work in the project site, the subcontractor's safety representative is not carrying out his/her obligations to ensure compliance with the subcontractor's environmental, health and safety programs and/or the requirements in Vestas Exhibit "S" (this document), Vestas will report the matter to the subcontractor. The subcontractor shall then take immediate corrective action to ensure its safety representative carries out his/her duties and responsibilities as required by this document.
- 3.5 Should the unsatisfactory performance continue, Vestas will direct the subcontractor to replace its safety representative.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 5 of 27

4. Program Policies, Practices and Procedures

- 4.1 The subcontractor shall develop and enforce environmental, health and safety requirements, policies, practices and procedures for the subcontractor's employees and representatives that encourage, promote, and establish an injury free workplace. Such programs shall include the enhancement of worker quality of life issues and the protection and preservation of the environment from the construction process on the project site.
- 4.2 To attain this high level of performance, the subcontractor shall train and review its employees and representatives with the requirements of Exhibit "S" and the subcontractor's environmental, health and safety practices and procedures. The subcontractor environmental, health and safety process will include those programs necessary to perform injury free work and comply with federal and provincial legislation. As minimum requirements, the subcontractor will provide procedures and training, and ensure compliance with the environmental, health and safety practices and procedures noted and initialed on the Subcontractor Checklist (Refer to Attachment S-1).
- 4.3 The subcontractor shall review and integrate the required task specific programs as outlined in the Subcontractor Checklist, into their site environmental, health and safety process. All applicable programs shall comply with federal and provincial legislation, and Vestas - CWT construction environmental, health and safety practices and procedures.
- 4.4 The subcontractor shall provide employees with training in hazard recognition and identification and the authorization necessary for them to take immediate corrective action of noted unsafe practices and/or conditions.

5. EH&S Discipline Policy

The subcontractor, its employees and representatives, are required to comply with all aspects of Exhibit "S", the Subcontractor Environmental, Health & Safety Requirements. Failure of the subcontractor, its employees and representatives to adhere to, and comply with, the Exhibit "S" requirements, will subject such persons to the environmental, health and safety (EHS) site discipline policy. The EHS discipline policy will utilize a three-step process for minor infractions. The three steps of the process are outlined below.

5.1 First Step: Verbal Warning

The verbal warning shall be considered administered upon acknowledgement and signing of this contract. This warning shall be communicated by the subcontractor to all its employees and representatives prior to commencing work on the project. The verbal warning will again be communicated, and acknowledgement documented, during the subcontractor employee and representative site orientation.

5.2 Second Step: Written Warning

The second step in the process is the written warning by the subcontractor to its employee and/or representative. A copy of the written warning will be submitted to the Vestas construction manager for review and appropriate action. Such action by Vestas construction manager, may result in, but not limited to, employee and/or representative re-orientation and/or retraining, removal from the project or other appropriate action as deemed necessary:

- Re-orientation and re-training will be conducted by the subcontractor and be attended by both the violator and his/her supervisor or foreman;
- This re-orientation and re-training will provide the employee and/or representative with a review of the environmental, health and safety practices and procedures to ensure an injury free workplace.

5.3 Third Step: Immediate Removal

Repeat of minor or major infractions will result in the immediate removal of the violator from the project site.

- Vestas reserves the right to demand the removal of a subcontractor employee or representative, for the violation of an environmental, health and safety standard, resulting in imminent danger to the employee and/or others.
- Immediate removal from the project site may include transfer, suspension, or termination of the employee, depending upon the severity of the violation;
- Upon determination for immediate removal, it is the subcontractor's responsibility to expeditiously remove the employee from the project site, with a minimum impact on the order and production of the project;
- Any supervisor, general foreman, superintendent, or construction manager who forces or directs any employee to violate an environmental, health and safety practice and/or procedure, will be removed from the project.

6. Drug and Alcohol Free Workplace Program

The inappropriate use of alcohol or drugs can have serious adverse effects on a person's health, safety and job performance. Safety is of prime consideration for both Vestas - CWT and its subcontractors; however, the need for safety must be balanced against the requirement that employees not be discriminated against on the basis of a prohibited ground of discrimination. Workplace rules and standards that have no demonstrable relationship to job safety and performance have been found to be in violation of an employee's human rights. The subcontractor is responsible to ensure it has its own Drug and Alcohol Free Workplace Program in place, prior to performing work for Vestas - CWT.

The Canadian Human Rights Act prohibits discrimination on the basis of disability and perceived disability. A disability would include those workers with a previous or existing dependence on alcohol or a drug. A perceived disability may include an employer's perception that a person's use of alcohol or drugs makes him or her unfit to work.

The Canadian Human Rights Commission view drug testing as generally not accepted, because it does not assess the effect of the drug use on performance. Available drug tests do not measure impairment, how much or when it was used. They can only accurately determine past drug exposure. Therefore, a drug test is not a reliable means of determining whether a person is or is not capable of performing the essential requirements or duties of their position. That said, alcohol testing may be acceptable in some cases, because a properly administered breathalyzer is a minimally intrusive and accurate measure of both consumption of alcohol and actual impairment. The subcontractor must be able to accommodate the needs for those that test positive.

6.1 Subcontractor Drug and Alcohol Free Workplace Program Scope

Subcontractors will ensure all their employees and representatives performing work on the project site, are drug and alcohol free. To support the intent of Vestas - CWT's drug and alcohol free workplace, the subcontractor will have an internal written substance abuse program, which addresses, at minimum, the guidelines and requirements outlined below. Vestas drug and alcohol free workplace administrator will review, approve and file the subcontractor program prior to the commencement of any work on the project site.

Note: The subcontractor shall include the provisions of this Drug and Alcohol Free Workplace Program requirement in every subcontract and require that his subcontractors include it in their contracts so that such provisions will be binding upon each subcontractor.

6.2 Drug and Alcohol Testing

The following types of testing are to be included in the subcontractor's drug and alcohol testing program:

- Random alcohol testing of employees in safety sensitive positions: Alcohol testing has been found to be a reasonable requirement because alcohol testing can indicate actual impairment of ability to perform or fulfill the essential duties or requirements of the job. Random drug testing is prohibited because, given its technical limitations, this form of testing can detect only the presence of drugs and not if or when an employee may have been impaired by drug use;
- Drug or alcohol testing for "reasonable cause" or post incident: Where there are reasonable grounds to believe there is an underlying problem of substance abuse, or where an accident has occurred due to impairment from drugs or alcohol, provided that testing is part of a broader program of medical assessment, monitoring and support;
- Periodic or random testing following disclosure of a current drug or alcohol dependency or abuse problem may be acceptable if tailored to individual circumstances and as part of a broader program of monitoring and support; and
- Mandatory disclosure of present or past drug or alcohol dependency or abuse may be permissible for employees holding safety sensitive positions, within certain limits, and in concert with accommodation measures. Generally, employees not in safety sensitive positions should not be required to disclose past drug alcohol or drug problems.

A safety sensitive position is one in which incapacity due to drug or alcohol impairment could result in direct and significant risk of injury to the employee, others or the environment. Safety sensitive positions are defined as 'Occupational positions which are deemed acutely sensitive to safety considerations such as Wind Turbine Generator (WTG) Technicians and tower construction crews, etc'.

The following types of drug and alcohol testing are not acceptable and are not to be conducted by the subcontractor:

- Pre-employment drug testing;
- Pre-employment alcohol testing;
- Random drug testing; and
- Random alcohol testing of employees in non-safety sensitive positions.

6.3 Random Drug and Alcohol Testing

Random drug testing is not acceptable, whether an employee holds a safety sensitive position or not. Since a positive drug test cannot measure present impairment and can only confirm that a person has been exposed to drugs at some point in the past, it cannot identify if a person was impaired on the job.

Alternate methods should be considered other than drug and alcohol testing such as awareness, education and rehabilitation. Enhanced supervision and peer monitoring are the most effective ways of ensuring that performance issues associated with drug and alcohol use are detected and resolved.

Random alcohol testing is permissible for employees in safety sensitive positions as long as employees are notified that this alcohol testing is a condition of employment. Subcontractors must meet the duty to accommodate these safety sensitive employees who test positive to a random alcohol test. Random alcohol testing for workers in a non-safety sensitive position is not acceptable. Unless the subcontractor has reasonable cause to believe the employee is unfit to conduct their job as a result of alcohol use, a subcontractor cannot demonstrate that it is reasonably necessary to administer breathalyzer tests to ensure effective job performance.

6.4 Reasonable Cause and Post Incident Drug and Alcohol Testing

Reasonable cause and post incident drug and alcohol testing may be permissible in a safety sensitive environment. Should an employee report for work and there are reasonable grounds to believe there is an underlying problem of substance abuse, or post incident, testing is reasonably necessary in risk sensitive environments, if this testing is part of a broader program of medical assessment, monitoring and support. This testing should be conducted as soon as reasonably practical, but not where there is evidence that the act or omission of the employee could not have been a contributing factor to the incident (e.g., structural or mechanical failure).

Reasonable cause and post incident drug and alcohol testing of employees in non-safety sensitive positions should be considered only if the employee's on the job behaviour provide reasonable grounds to believe he or she is impaired by drugs and alcohol. An employer would have to show that, in a particular employee's case, the circumstances were such that no other means were possible, short of undue hardship to the subcontractor, to ensure the accomplishment of a legitimate objective such as workplace safety.

6.5 Follow up Testing

Following disclosure of a substance abuse or dependency problem, periodic or random testing is permissible as long as it is tailored to individual circumstances, and is part of a broader program of monitoring, rehabilitation and support. Usually the designated rehabilitation provider will determine whether follow up testing is necessary for a particular individual.

6.6 Mandatory Disclosure

Employees working in safety sensitive positions can be asked to disclose current substance abuse problems, as well as past problems with drugs or alcohol within the last 5 years. Automatic dismissal or refusal to employ an individual based on a disclosure of past or present dependency on drugs or alcohol is not in keeping with the Canadian Human Rights Act. The subcontractor must accommodate the individual to the point of undue hardship. Failure of an individual to disclose a substance abuse problem should also not be grounds for dismissal as denial is a symptom of addiction.

Generally, employees in non-safety sensitive positions need not disclose past dependency on alcohol or drugs unless an employer can show that, in a particular employee's case, the circumstances were such that no other means were possible, short of undue hardship to the subcontractor, to ensure the accomplishment of a legitimate objective such as workplace safety.

6.7 Accommodation

The subcontractor must temporarily remove an employee with an active or recently active substance abuse problem from a safety sensitive position and reassignment is not acceptable. In circumstance in which testing is justified, employees who test positive must be accommodated to the point of undue hardship. Accommodation should include the necessary support to permit the employee to undergo treatment or a rehabilitation program, and consideration of sanctions less severe than dismissal. The subcontractor will be relieved of the duty to accommodate the individual needs of the alcohol or drug dependent employee only if the employer can show that:

- The cost of accommodation would alter the nature or affect the viability of the subcontractor, or
- Notwithstanding the accommodation efforts, health or safety risks to workers or members of the public are so serious that they outweigh the benefits of providing individualized accommodation or consideration to a worker with an addiction or a dependency problem.

Once rehabilitation has been successfully completed, the employee should be returned to their position. Follow up testing may be a condition of continued employment where safety continues to be of fundamental importance. If follow up testing reveals continuing drug or alcohol use, further subcontractor action up to dismissal may be justified.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 10 of 27

If a subcontractor has reasonable cause to believe an employee is abusing drugs or alcohol or an employee tests positive and refuses treatment, this in itself does not constitute undue hardship or justify immediate dismissal of the employee. The subcontractor needs to demonstrate through progressive discipline that the employee has been warned and is unable to perform the essential requirements of his or her position.

6.8 Ensuring Compliance

In the limited circumstances where drug and alcohol testing may be considered a valid requirement of the job, the following elements should be considered:

- Does the subcontractor notify applicants of this requirement at the time that an offer of employment is made? The circumstances under which testing may be required should be made clear to employees and applicants.
- Are drug and alcohol samples collected by accredited individuals, and are the test results analyzed by a certified laboratory?
- Are procedures in place to ensure that a health care professional review the results with the employee or applicant concerned? All confirmed positive test results should be evaluated to determine if there is an explanation for the positive test result other than substance abuse. An affected individual or employee should have the right to submit a request to have their sample re-tested by an accredited laboratory should the original results be in dispute.
- Are procedures in place to ensure confidentiality of the results? Any records concerning drug and alcohol tests should be kept in a separate confidential file away from other employee records.

6.9 Positive Test Results

Any subcontractor employee or representative, whose drug screen results indicate a positive test for substance abuse, shall be immediately removed from the project site. The subcontractor has the full responsibility to remove that employee or representative in a prompt and orderly manner:

- An employee who has been removed from the site for a positive test will not be permitted to return to work until the subcontractor's authorized Employee Assistance Program (EAP) and/or its drug free workplace counseling service have released them, in writing.
- Vestas - CWT reserves the right to deny an employee's return to work on a case-by-case basis.

6.10 Financial Obligations

All costs connected with the development, implementation and administration of the subcontractor's drug and alcohol free workplace program, will be the sole responsibility of the subcontractor. These costs include, but are not limited to the following:

- Employee pay and benefits for the time to and from the collection site;
- Transportation to and from the collection site;



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 11 of 27

- Collection of the sample and laboratory analysis; and
- Other services related to the subcontractor's drug and alcohol free workplace program.

6.11 Subcontractor Non-Compliance

In the event of subcontractor non-compliance with all the conditions outlined in Section 6.0 of the Exhibit "S", the subcontract/subcontractor may be cancelled, terminated, or suspended, in whole or in part. Subsequent to this action, Vestas - CWT may complete the work and invoice the cost to the subcontractor.

7. Training Requirements

7.1 New-Hire Safety Orientation

Subcontractor employees and representative entering the site for the first time must attend the jobsite safety orientation before that employee or representative performs any work. Every new employee will complete a Vestas - CWT Project Safety Orientation Checklist or one meeting the intent of this requirement.

7.2 First Aid/CPR

The subcontractor will designate in writing the names of employees currently trained and certified in CPR/First Aid, through an approved program.

- Training will be conducted and certified through an accredited training provider which meets provincial requirements;
- Proof of current training will be provided to Vestas - CWT; and
- The number of trained personnel must meet applicable provincial requirements.

7.3 Workplace Hazardous Materials Information System (WHMIS)

Subcontractor employees and representatives must be properly trained in, and informed of, the identification and characteristics potential health risk and hazards, and the safe use and handling of all hazardous chemicals, materials and substances they will handle and work with, or possibly come in contact with on the jobsite.

- The subcontractor shall conduct follow-up training and provide undated information with the introduction of any new hazardous chemical, material or substance to the jobsite, or as otherwise indicated.
- Vestas - CWT will be provided with copies of the subcontract WHMIS training document.

7.4 Transportation of Dangerous Goods (TDG)

The subcontractor will ensure and provide proof of current Transportation of Dangerous Goods (TDG) training to Vestas - CWT for all personnel that will be transporting hazardous goods.

7.5 Confined Space Entry

The subcontractor will ensure all personnel assigned duties related to confined space entry are adequately trained in the recognition of hazards associated with the confined space and the safe performance of the assigned duties. A record of this training must be provided to Vestas - CWT.

7.6 Equipment Training

The subcontractor will ensure that personnel are adequately trained in the safe operation of the equipment that the worker is required to operate. This training includes the selection of appropriate equipment, limitations of the equipment, an operator's pre-use inspection, the use of the equipment, the operators skills required by the manufacturers specifications for the equipment, the basic mechanical and maintenance requirements of the equipment, loading and unloading of the equipment if doing so is a job requirement, and the hazards specific to the operation of the equipment at the worksite.

7.7 Hazard Specific Training

Additional training may be required by the subcontractor for any activities that are specific in nature. This type of training might include fall protection and rescue, first aid transportation, respiratory protection, all terrain vehicle, snowmobile, fire fighting, rescue and defensive driving. This training will be specific to project location and the hazards associated with the project.

7.8 Foreman Training/Meetings

Depending on the subject requirements, schedule and scope of work, subcontractor foremen/supervisors may be required to attend a weekly foremen training and/or meeting administered by Vestas - CWT.

- Training sessions and meetings will be limited to a maximum of one (1) hour per week;
- Training and meetings will primarily focus on required environmental, health and safety training, injury free workplace issues, and planning for the upcoming phases of the project.

7.9 Subcontractor Assistance

Upon written request from the subcontractor, Vestas - CWT may assist the subcontractor in training of subcontractor's employees and representatives in specific areas of environmental, health and safety to enhance the injury free workplace process. Such training will be limited to those areas deemed by Vestas - CWT to be consistent with its responsibility as CM/EPC and mutually beneficial to the general workforce.

7.10 Training/Meeting Matrix

The Vestas - CWT Training and Meeting Matrix (Refer to Attachment S-2) is provided to outline the minimum training and meeting expectations for the project. The subcontractor shall review and integrate these training and meeting expectations into their environmental safety and health program. Should additional training and meeting requirements become necessary as the project develops, Vestas - CWT will advise the subcontractor.

8. Meeting Requirements

8.1 Vestas - CWT Weekly Safety Meeting

In keeping with its commitment to an injury free workplace, Vestas - CWT will conduct a weekly safety meeting, which will be attended by all subcontractor employees and representatives on the project.

- The meeting will be limited to twenty (20) minutes, and
- Meetings will be conducted every Monday morning at shift start, unless the Vestas - CWT construction manager directs otherwise.

8.2 Subcontractor Weekly Tailgate/Tool Box Safety Meeting

Subcontractors will administer a separate Weekly Tailgate/Toolbox Safety Meeting, to address environmental, health and safety issues specific to their trade, scope and phase of work. The subcontractor will submit weekly to Vestas - CWT, a copy of the safety meeting minutes and the names of those in attendance.

8.3 Training/Meeting Matrix

The Vestas - CWT Training and Meeting Matrix (Refer to Attachment S-2) is provided to outline the minimum training and meeting expectations for the project. The subcontractor shall review and integrate these training and meeting expectations into their environmental, health and safety program. Should additional training and meeting requirements become necessary as the project develops, Vestas - CWT will advise the subcontractor.

9. Documentation

Each subcontractor will be required to maintain the following documentation on the jobsite and provide Vestas - CWT with copies of such records as noted below.

9.1 Daily Injury and Illness Reporting

Subcontractors shall record all injuries and illnesses resulting from incidents on the job, regardless of severity and level of subsequent treatment.

9.2 First Aid Log

A first aid injury log shall be kept on file in the subcontractor's office.

9.3 Incident Report

A Supervisor's Incident Report (SIR) shall be filed with Vestas - CWT for all incidents resulting in injury, property damage, and near misses with serious potential for either. Verbal notification of the incident shall be made immediately after the occurrence of the incident, followed by a written report submitted to Vestas - CWT within twenty-four (24) hours.

9.4 Weekly Safety Meeting Minutes

Each subcontractor will provide Vestas - CWT with a copy of the subcontractor's weekly safety meeting minutes within twenty-four (24) hours of the safety meeting.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 14 of 27

9.5 Material Safety Data Sheets (MSDS)

Subcontractor employees and representatives will not bring, come in contact with, use, move, disturb, generate, store, transport or otherwise in any way deal with hazardous substances at the project site without the prior knowledge of the Vestas - CWT construction manager. Vestas - CWT will be provided with the MSDS for all hazardous substances before the subcontractor's employees and representatives bring, move, disturb, generate, store, transport or otherwise deal with any such substances at the project site. The subcontractor will keep an active file of all Material Safety Data Sheets (MSDS) used by that subcontractor.

9.6 Phased Safety Plan

Vestas - CWT requires a phased safety plan to be developed for the project by the subcontractor. The subcontractor must submit the safety plan to Vestas - CWT prior to starting work.

- **Job Hazard Analysis (JHA)**

This process and format (refer to Attachment S-3) will be used to identify the steps of the job, inherent hazards and a description of how the work will be performed safely. The subcontractor will utilize the JHA to train all affected workers prior to commencing working. JHAs will be submitted to Vestas - CWT for review and approval.

- **Pre-Task Planning (PTP)**

Using the JHA, pre-task planning shall be conducted daily by the supervisor and crew, to further identify the current task, working conditions and preventive measures to protect workers.

9.7 Daily Diaries

A Subcontractor Daily Job Diary (refer to Attachment S-4) shall be completed and submitted to Vestas - CWT on a daily basis by the supervisor/foreman of each crew working on the project. The report consists of total manpower, man-hours worked, limitations to performance of work, location of work and safety issues noted.

10. Incident, Injury and Emergency Procedures

10.1 Incidents and Injury Reporting

Subcontractors shall immediately report to Vestas - CWT, all incidents and injuries affecting their employees and representatives. Any first aid services will be recorded on the subcontractor's Daily First Aid Log.

10.2 Medical Treatment

The subcontractor is responsible to ensure an injured worker requiring medical treatment is provided with transportation to and from the medical facility. The subcontractor may use its medical provider of choice unless Vestas - CWT construction manager determines otherwise.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 15 of 27

10.3 Early Return to Work

The subcontractor will cooperate to the fullest extent possible with Vestas - CWT's modified work/light duty program. All subcontractors shall develop and maintain an Early Return to Work Program that meets or exceeds Vestas - CWT's Program.

10.4 Incident Investigation, Review and Report Out

Incidents will be investigated and reviewed by Vestas - CWT and the subcontractor. At minimum, the chronology of events, contributing factors, root cause, and corrective action plan will be outlined and reported. A final report will be submitted to Vestas - CWT within twenty-four (24) hours of the incident. If information is lacking, a preliminary report will be filed.

10.5 Injury Management

The subcontractor shall assist Vestas - CWT in all areas of injury management, with the greatest emphasis placed on incident prevention. A proactive approach and total acceptance of the injury free workplace philosophy and process is the key focus.

10.6 Emergency Response Plan

The subcontractor must have in place a written emergency response plan for responding to an emergency that may require rescue or evacuation. This emergency response plan must describe the emergency procedures to be followed until emergency services arrive at the worksite. This emergency response plan must be communicated to all workers and simulated exercises will be held appropriate for the types of emergencies reasonably likely to occur at the worksite.

11. Personal Protective Equipment

Vestas - CWT personal protection equipment (PPE) requirements apply to the subcontractor, and all its employees, lower tier contractors, vendors, suppliers, and visitors. (**Note:** The subcontractor is solely responsible for providing all its employees and representatives with the appropriate site required personal protective equipment. Vestas - CWT will not provide PPE to the subcontractor's employees and representatives.)

- **Clothing** - Full length, non-cuffed pants will be worn. No shirts with sleeve length less than "T" shirt length will be worn at all times.
- **Footwear** - Over the ankle, sturdy, work boots made of leather and/or other substantial synthetic materials, will be worn at all times. Should steel toes and/or other special safety features be required, Vestas - CWT will notify the subcontractor.
- **Eye Protection** - Eye protection (safety glasses) will be worn at all times. Safety glasses must meet CSA Standard Z94.3-2 requirements. Prescription lenses and frames will meet the same requirements. Job specific hazards may require additional protection to include, but not limited to, use of goggles when handling hazardous chemicals.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 16 of 27

- **Hearing Protection** - Hearing protection (ear plugs or ear muffs) will be worn by employees when working in high-noise areas and/or when operating high-noise emitting tools or equipment. On Vestas - CWT projects, high noise is defined as that which measures over 80 decibels. A noise management program is required if workers are noise exposed.
- **Head Protection** - All employees are required to wear head protection at all times, except in designated "safe areas". This includes contractors, lower tier contractors, vendors, suppliers, and visitors. Head protection must meet CSA Standard CAN/CSA-Z94.1-92.

12. Fall Protection

Vestas - CWT's Fall Protection Plan focuses on the elimination of the fall hazard as its first priority. The use of personal protective equipment (PPE) fall protection systems will be authorized only as a last resort. PPE will be utilized only after a thorough analysis of the fall hazard has been made and it is determined no other method to eliminate the hazard is feasible and/or possible.

100% Fall Protection: The subcontractor will provide 100% fall protection to its workers when they are exposed to a potential fall of over 3 metres (10 feet). There are no exceptions to this requirement.

Fall Protection Plan: When a fall potential of over 3 metres (10 feet) exists, the subcontractor will develop a fall protection plan which addresses how the worker will be protected from exposure.

Engineering and Administrative Controls: The subcontractor fall protection plan will first take into consideration preventive measures such as standard guarding, boom scissor lifts, scaffolding, and other methods of protection before resorting to PPE systems.

Personal Protective Equipment: When all other protection systems have been considered and found not to be feasible, the exposed workers will wear PPE. Whether in a restraint or fall arrest mode, an approved full body harness will be worn. Safety belts are not approved for use on Vestas - CWT projects.

- Fall "restraint" is the preferred method of fall protection when a harness is worn; the fall arrest method is the last resort in all fall protection plans.
- An approved lanyard will be secured to a rigged restraint line and/or anchor point.
- Lanyard hooks must be the double-lock type.

Training: The worker will be trained on fall protection issues, to include the proper care, wear and use of personal protective equipment, specifically the harness, lanyard and other equipment used for fall restraint and arrest applications.

- The worker shall be made aware of his/her obligation to wear and use a full body harness and associated equipment when the work task dictates;
- A worker observed not tying off at all times, will be subject to immediate removal from the site;
- The worker will acknowledge their understanding of this policy, and responsibility to work accordingly, by signing a statement to that effect.

13. Housekeeping

Good housekeeping is essential to the success of Vestas - CWT's injury free workplace. A neat and clean jobsite prevents incidents that result in injury. The subcontractor in partnership with Vestas - CWT, is responsible for maintaining the worksite in a clean/safe condition.

Daily Requirement: The subcontractor will perform housekeeping on a continual basis and will ensure its work areas are kept free from construction debris in accordance with the project housekeeping requirements.

14. Additional Program Requirements

Overhead Work: Controlled access zones will be established where overhead work is underway, to ensure workers are not exposed to falling equipment or material. Substantial barricades will be installed and signs posted to prevent workers or general public from entering these controlled access zones inadvertently.

Electrical Safety: Temporary GFCI systems shall be utilized to eliminate electrical shock hazards.

- Electrical cords and equipment shall be grounded or bonded in accordance with the standards outlined in federal and provincial legislation, and
- Electrical equipment shall be visually inspected daily for external defects. Equipment found to be in need of repair shall be removed from service until repaired and tested.

Hazardous Chemicals and Materials: The subcontractor is responsible for the procurement, transport, storage, handling, use, and disposal of all hazardous chemicals and/or materials required to perform its scope of work. When possible, the subcontractor shall substitute and utilize a less hazardous chemical and/or material to minimize potential exposure to employees and the environment. Additionally, the subcontractor shall comply with the following guidelines:

- Notify Vestas - CWT prior to bringing a hazardous chemical and/or material on the project site;
- Provide Vestas - CWT with a corresponding and current Material Safety Data Sheet (MSDS);
- Identify the contents of all containers and label accordingly;
- Train employees in the safe use and handling of the hazardous chemical and/or material;
- Develop a spill containment and cleanup procedure. Train affected employees; and
- Store flammable liquids in quantities over 5 gallons in a designated storage area.

Hazardous and Non-Hazardous Waste Control: The subcontractor shall ensure proper handling and disposal of all hazardous and non-hazardous waste. Recycling of non-hazardous waste is encouraged and where possible separation of metal, wood, cardboard, and other recyclable material will be performed. Additionally, the subcontractor shall comply with the following guidelines:

- Remove all non-hazardous waste from the work area daily and dispose in designated containers;



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 18 of 27

- Store and dispose of hazardous waste in accordance with federal and provincial legislation; and

- Collect and remove all hazardous and non-hazardous waste, and/or unused chemicals and materials, from the project site prior to completion of work and departure from the site.

Fire Prevention and Protection: The subcontractor shall provide adequate fire prevention and protection procedures and equipment to protect workers and property. Fire prevention methods, such as good housekeeping, will be the first line of defence against fire.

- The subcontractor will notify the Vestas - CWT construction coordinator of any fire in its area of operation immediately, even if it has been contained and extinguished;

- Fire extinguishers must be of the appropriate size and fire retardant to provide effective protection for the fire hazard present; and

- In addition to fire protection equipment, the subcontractor will provide a designated fire-watch for all related hot work activities.



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 19 of 27

15. Attachments

- ☐ **Attachment S-1** - Subcontractor Checklist
- ☐ **Attachment S-2** - Training/Meeting Matrix
- ☐ **Attachment S-3** - Job Hazard Analysis
- ☐ **Attachment S-4** - Subcontractor Daily Job Diary
- ☐ **Attachment S-5** - Environmental, Health & Safety (EHS) Orientation Checklist
- ☐ **Attachment S-6** - Exhibit "S" Subcontractor Acknowledgement and Agreement



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 20 of 27

Environmental, Health & Safety Practices and Procedures

15.1 Attachment S-1 - Subcontractor Checklist

- | | |
|--|---|
| <input type="checkbox"/> Airborne Contaminant Control | <input type="checkbox"/> Housekeeping |
| <input type="checkbox"/> Barricading and Safety Signage | <input type="checkbox"/> Hot Work (Electrical) |
| <input type="checkbox"/> Confined Space Entry Code of Practice | <input type="checkbox"/> Hot Work (Non-Electrical) |
| <input type="checkbox"/> Cranes, Hoist and Rigging | <input type="checkbox"/> Incident Emergency Response |
| <input type="checkbox"/> Operations | <input type="checkbox"/> Incident Reporting and Review |
| <input type="checkbox"/> Disciplinary Policy | <input type="checkbox"/> Ladder/Scaffolding/Aerial Lifts |
| <input type="checkbox"/> Drug and Alcohol Free Workplace | <input type="checkbox"/> Material Handling (Hazardous) |
| <input type="checkbox"/> Environmental Protection | <input type="checkbox"/> Material Handling (Non-Hazardous) |
| <input type="checkbox"/> Ergonomics and Body Mechanics | <input type="checkbox"/> Personal Protective Equipment (PPE) |
| <input type="checkbox"/> Equipment and Power Tool Safety | <input type="checkbox"/> Respiratory Protection Code of Practice |
| <input type="checkbox"/> Excavation and Trenching | <input type="checkbox"/> Safety Audits and Inspections |
| <input type="checkbox"/> Fall Protection and Prevention | <input type="checkbox"/> Vehicle and Equipment Traffic Control |
| <input type="checkbox"/> First Aid and Medical Treatment | <input type="checkbox"/> Waste Management (Hazardous) |
| <input type="checkbox"/> Hearing Conservation | <input type="checkbox"/> Waste Management (Non-Hazardous) |
| <input type="checkbox"/> Hazardous Energy Lockout/Tagout | <input type="checkbox"/> Workplace Hazardous Materials
Information Systems (WHMIS) |
| <input type="checkbox"/> Working Alone | |



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 21 of 27

Environmental, Health & Safety Practices and Procedures

15.2 Attachment S-2 - Training/Meeting Matrix

Training	Time Frame	Frequency	Personnel
Safety orientation	1 to 2 hours	Once	All employees
First aid/CPR training	8 hours	Once	All foremen, superintendents, safety reps and additional as required by legislation.
Workplace Hazardous Materials Information training - by subcontractor	1 hour	As necessary	Subcontractor employees and other personnel that may be exposed to hazardous materials
Transportation of Dangerous Goods (TDG)	8 Hours	Every 3 Years	Employees transporting dangerous goods
Confined space entry training	8 hours	Every 3 years	All personnel assigned duties related to confined space entry
Equipment training	Varies depending upon equipment	Varies depending upon equipment	All personnel operating equipment
Hazard/Task specific	2-8 hours	As necessary	All employees

Meetings	Time Frame	Frequency	Personnel
Foremen training/meetings	1 hour	Weekly	All foremen and superintendents
Pre-task planning	20 minutes	Daily	All field personnel
Safety walks audit	1 hour	Weekly	All foremen, superintendents, pm
Vestas - CWT weekly safety meeting	20 minutes	Weekly	All personnel
Subcontractors safety meeting	20 minutes	Weekly	All subcontractors field personnel
Schedule meeting	1 hour	Weekly	All superintendents, GF
Safety leadership team	2 hours	Monthly	Senior managers
Incident review	1 to 4 hours	For every incident and near miss	All foremen, superintendent, safety representative and personnel involved



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 23 of 27

15.4 Attachment S-4 - Subcontractor Daily Job Diary

Work Date:	Day of Week:
Company Name:	
Location of Work:	
Hindrance to Work Progress:	
Total Workers on Site:	
Total Man-hours:	
Incident(s):	
Description:	
Injury(ies):	
Reported By:	
Site Phone Number:	



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 24 of 27

15.5 Attachment S-5 - Environmental, Health & Safety (EHS) Orientation Checklist

Employee: (Print) _____

Date: _____

Company: _____

Logistics

- | | |
|--|--|
| <input type="checkbox"/> Parking | <input type="checkbox"/> Weather |
| <input type="checkbox"/> Lunch areas | <input type="checkbox"/> Working times |
| <input type="checkbox"/> Restroom facilities | <input type="checkbox"/> Harassment |
| <input type="checkbox"/> Job phone numbers | <input type="checkbox"/> Smoking/chewing |
| <input type="checkbox"/> First aid stations | <input type="checkbox"/> Safe work zones |

Injury Free Workplace

- | | |
|--|--|
| <input type="checkbox"/> Vestas-AWT Mission Statement | <input type="checkbox"/> Employee motivation/recognition |
| <input type="checkbox"/> Injury free philosophy | <input type="checkbox"/> Management involvement |
| <input type="checkbox"/> Pre-task planning (PTP) | <input type="checkbox"/> Communication |
| <input type="checkbox"/> Risk assessments (JHA) | <input type="checkbox"/> Training requirements |
| <input type="checkbox"/> Incident review process | <input type="checkbox"/> Discipline |
| <input type="checkbox"/> Drug and alcohol free workplace | |

Safety Meetings/Audits

- | | |
|---|--|
| <input type="checkbox"/> Daily safety audits | <input type="checkbox"/> Project safety leader team (SLT) |
| <input type="checkbox"/> Incident reviews | <input type="checkbox"/> Vestas - CWT safety leadership team |
| <input type="checkbox"/> Safety self assessment (SSA) | <input type="checkbox"/> Daily tailgate safety meetings |
| <input type="checkbox"/> Safety committee meeting (Monthly) | <input type="checkbox"/> Weekly safety meetings |

Incident/Accident/Near Miss Reporting

- | | |
|--|--|
| <input type="checkbox"/> Correct and/or report all safety concerns and hazards immediately!! | <input type="checkbox"/> Serious injuries - call 911 |
| <input type="checkbox"/> Report near misses, accidents, incidents, and all first aids | <input type="checkbox"/> Site specific radio/phone procedures |
| <input type="checkbox"/> Report all injuries to your supervisor | <input type="checkbox"/> Evacuation and assembly area |
| <input type="checkbox"/> Fire | <input type="checkbox"/> Spills - leaking equipment/containers/environment |
| <input type="checkbox"/> Emergency response plan | |



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 25 of 27

Personal Protective Equipment (PPE)

- | | |
|---|--|
| <input type="checkbox"/> Head Protection (Hardhats) | <input type="checkbox"/> Foot Protection (Work Boots) |
| <input type="checkbox"/> Eye Protection (Safety Glasses) | <input type="checkbox"/> Reflective Vests (as required) Sleeved Shirts |
| <input type="checkbox"/> Hand Protection (Appropriate Gloves) | <input type="checkbox"/> Respiratory Protection |

Workplace Hazardous Materials Information System

- | | |
|--|--|
| <input type="checkbox"/> Location of hazardous materials | <input type="checkbox"/> Understanding MSDSs |
| <input type="checkbox"/> Physical and health hazards | <input type="checkbox"/> Personal protective equipment |
| <input type="checkbox"/> Recognizing overexposure or emergency | <input type="checkbox"/> Location of MSDSs |

Personal Fall Protection

- | | |
|---|--|
| <input type="checkbox"/> No exposure to a fall of 3 meters (10 feet) or greater | <input type="checkbox"/> Ladder safety |
| <input type="checkbox"/> Use of full body safety harness only - no body belts | <input type="checkbox"/> Failure to comply with Vestas - CWT fall protection requirements is subject to immediate termination/removal from jobsite |

Specific Job Hazard Requirements

- | | |
|--|--|
| <input type="checkbox"/> First aid/CPR and blood-borne pathogens | <input type="checkbox"/> Traffic |
| <input type="checkbox"/> Housekeeping | <input type="checkbox"/> Work zone safety caution tape/danger tape |
| <input type="checkbox"/> Assured equipment grounding - GFCI | <input type="checkbox"/> Hot work/confined space |
| <input type="checkbox"/> Lockout/tagout | <input type="checkbox"/> Material lifting |
| <input type="checkbox"/> Operators of all mobile equipment must be trained, qualified, and carded. i.e., forklifts, articulating lifts, cranes | |

Employee Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 26 of 27

15.6 Attachment S-6 - Exhibit "S" Subcontractor Acknowledgement and Agreement

Vestas - CWT Project Name _____ **Project #** _____

The subcontractor, _____, has a subcontract with Vestas - Canadian Wind Technology, Inc. to perform certain specific labour in this project. Said subcontractor is required to ensure all its employees, subcontractors, suppliers, agents and representatives performing labour in this project, comply with this Exhibit "S" (Subcontractor Environmental, Health & Safety Requirements) in its entirety.

The subcontractor has read and understands the conditions outlined herein. Further, the subcontractor agrees to be bound by, and comply with, all terms and provisions, and assumes the responsibility for all associated costs to implement these requirements.

The subcontractor agrees to inform its crew(s) actually performing the work, of the contents of Exhibit "S" and this agreement prior to reporting to work on the project.

Accepted and Agreed to this _____ Day of _____

Vestas - Canadian Wind Technology, Inc.
Contractor

Subcontractor

By _____
Name of Vestas - CWT Representative

By _____
Name of Subcontractor Representative

Title

Title



CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
**Canadian Subcontractor
Requirements**

DMS 0008-7999 R01
Date 2010-01-01
Page 27 of 27

16. History of this Document

Rev. no.:	Date:	Description of changes
00	2003-11-20	First edition – Renumbered and Reformatted – 21-May-07
01	2010-01-01	

TRADE SECRET & CONFIDENTIAL



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 1 of 25

Contents

Introduction	3
1. Federal and State OSHA Compliance	4
2. Site Safety Representative	4
3. Program Policies, Practices and Procedures	5
4. EHS Discipline Policy	6
5. Drug Free Workplace Program	7
5.1 Subcontractor Drug Free Workplace Program Scope	7
5.2 Testing Frequency and Methods	7
5.3 Program Minimum Test Panel Standards	7
5.4 Drug Testing Cut-off Levels:	8
5.5 Pre-Construction Verification Requirements	8
5.6 Incidents and Reasonable Suspicion	8
5.7 Positive Test Results	9
5.8 Financial Obligations	9
5.9 Subcontractor Non-Compliance	9
6. Training Requirements	9
6.1 New-Hire Safety Orientation	9
6.2 Drug Free Workplace Testing	9
6.3 First Aid/CPR	10
6.4 Hazard Communication (Haz-Com)	10
6.5 Foreman Training/Meetings	10
6.6 Subcontractor Assistance	10
7. Meeting Requirements	10
7.1 Training/Meeting Matrix	10
7.2 Vestas-AWT Weekly Safety Meeting	12
7.3 Subcontractor Weekly Tailgate/Tool Box Safety Meeting	12
8. Documentation	12
9. OSHA- Form 300 Log	12
9.1 Incident Report	12
9.2 Weekly Safety Meeting Minutes	12
9.3 Assured Grounding Notice	12
9.4 Material Safety Data Sheets (MSDS)	12
9.5 Phased Safety Plan	13
9.6 Daily Diaries	13
10. Incident, Injury and Emergency Procedures	13

Vestas American Wind Technology 1881 SW Naito Parkway, Portland, Oregon USA

DMS 0008-7897 R5 09-July-2010

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VAME HSE Manual

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T08 0008-6835 Ver 02 - Approved - Exported from DMS: 2010-07-09 by ASUER



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 2 of 25

10.1 Incidents and Injury Reporting:	13
10.2 Medical Treatment:	13
10.3 Early Return to Work:	Error! Bookmark not defined. 13
10.4 Incident Investigation Review and Report-Out	13
10.5 Injury Management	14
11. Personal Protective Equipment	14
11.1 Clothing	14
11.2 Footwear	14
11.3 Eye Protection	14
11.4 Hearing Protection	14
11.5 Head Protection	14
12. Fall Protection	15
12.2 Fall Protection Plan	15
12.3 Engineering and Administrative Controls	15
12.4 Personal Protective Equipment	15
12.5 Training	15
13. Housekeeping	15
13.1 Daily Requirement	16
14. Additional Program Requirements	16
14.1 Overhead Work	16
14.2 Electrical Safety	16
Temporary GFCI systems shall be utilized to eliminate electrical shock hazards	16
14.3 Hazardous Chemicals and Materials	16
14.4 Hazardous and Non-Hazardous Waste Control	16
14.5 Fire Prevention and Protection	17
15. History of this Document	25



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 3 of 25

Introduction:

Health, Safety & Environmental (HSE) Goals and Expectations

Vestas - American Wind Technology, Inc. expects and requires that Subcontractors develop and implement EHS programs and management systems that accomplish the following:

- Encourage, promote and establish goals and expectations that the Subcontractor and its subcontractors, suppliers, and all their respective employees, agents and representatives will enter into this project with a desire to create and maintain an **Injury Free Workplace** and a working environment that recognizes the well-being of the people working at the project site and the need to protect the environment from activities at the project site.
- Establish and maintain management commitment, resources, training, site supervision, and personnel that not only provide quality work, but also place the safety and well-being of the people working at the project site and the protection of the environment from activities at the project site on an **uncompromisable standard**.
- The Subcontractor shall comply with the suggestions and requirements set forth in these Subcontractor Environmental, Health, and Safety Requirements (this document). The subcontractor is further obligated and responsible to ensure its employees and representatives that enter the project site embrace the above goals and expectations and comply with the requirements set forth in this document.
- Subcontractor non-compliance with the requirements set forth in this document may result in cancellation, termination, or suspension of the subcontract, in whole or in part, and allow Vestas – American Wind Technology, Inc. To complete the work at the Subcontractors cost.
- The Subcontractor shall include the provisions of this document in every subcontract with its subcontractor's, and its subcontractors shall extend this requirement to their subcontractors.
- At minimum, the Subcontractor Environmental, Health & Safety programs shall meet or exceed the requirement outlined in this document. Where conflicts occur, the most stringent provision shall apply.



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 4 of 25

1. Federal and State OSHA Compliance

The Subcontractor, and its employees and representatives, will comply with all applicable Federal and State Environmental, Health & Safety regulations as outlined in 29 CFR 1910 and 1926.

- **NOTE:** When the above standards are exceeded by Vestas-AWT in this document, and/or in other Vestas-AWT Environmental, Health & Safety practices and procedures, the Subcontractor, and its employees and representatives, will comply with those higher standards.

2. Site Safety Representative

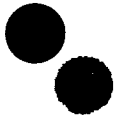
2.1 Subcontractors with less than ten employees performing work at the project site will designate a Site Safety Representative.

- The assigned Subcontractor Safety Representative may be a Supervisor, foreman or working member of the crew. This Safety Representative is directly responsible for implementing and maintaining the project site specific Subcontractor Environmental Health & Safety Programs (see section 3: Program Policies, Practices and Procedures), which are designed to meet the goals and expectations of, and the suggestions and requirements set forth in, these Subcontractor Environmental Health & Safety Requirements.
- At minimum, Safety Representative is authorized to stop work when an imminent danger situation exists. Additionally, this person may be authorized to implement changes regarding the Subcontractor Environmental, Health & Safety Programs and their administration, quality of life issues, unsafe acts and conditions, employee non-compliance, disciplinary and last chance programs.

2.2 For subcontractors with ten or more employees on the project site, in addition to the requirements in section 2.1, a Subcontractor Safety Professional will be available to respond to project Safety and Health issues.

- This Safety Professional, which may be the Subcontractor's Safety Director, Manager or Safety Consultant, is not required to be on site full time.
- The Safety Professional's responsibility includes assisting the Subcontractor's Site Superintendent/General Foreman and Site Safety Representative in implementing and maintaining the site-specific Subcontractor Environmental Health and Safety process, designed to meet the goals, expectations, and requirements outlined in this document.
- Prior to Subcontractor's start-up of work, Vestas-AWT will provide the Safety Professional's point of contact information.

2.3 The Subcontractor Safety Representative shall provide quality safety training programs for subcontractor employees and representatives, and implement protective measures to prevent damage, injury, or loss to its employees and representatives performing work at the project site, as well as other impacted persons in the Subcontractor's area of responsibility.



- 2.4 If the project requires the staffing of a full-time Subcontractor Safety Representative, the qualifications of the selected individual will be submitted in writing to Vestas-AWT.
- If during the course of work on the project site, the Subcontractor's Safety Representative is not carrying out his/her obligations to ensure compliance with the Subcontractor's Environmental, Health & Safety Programs and/or the requirements set forth in this document, Vestas-AWT will report the matter to the Subcontractor. The Subcontractor shall then take immediate corrective action to ensure its Safety Representative carries out his/her duties and responsibilities as required by this document.
- 2.5 Should the unsatisfactory performance continue Vestas-AWT will direct the Subcontractor to replace its Safety Representative.

3. Program Policies, Practices and Procedures

- 3.1 The Subcontractor shall develop and enforce Environmental, Health & Safety requirements, policies, practices, and procedures for the Subcontractor's employees and representatives that encourage, promote, and establish an Injury Free Workplace. Such programs shall include the enhancement of worker quality of life issues and the protections and preservation of the environment from the construction process on the project site.
- 3.2 To attain this high level of performance, the subcontractor shall train and review its employees and representatives with the requirements of this document and the Subcontractor's Environmental Health and Safety practices and procedures. The Subcontractor Environmental Health and Safety Process will include those programs necessary to perform Injury Free Work and comply with Federal and State OSHA regulations. As a minimum requirement, the Subcontractor will provide procedures and training, and ensure compliance with the Environmental, Health and Safety Practices and Procedures noted and initialed on the Subcontractor Checklist. **(Refer to Subcontractor Checklist on page 18.)**
- 3.3 The Subcontractor shall review and integrate the required task specific programs as outlined in the Subcontractor Checklist, into their Site Environmental Health and Safety Process. All applicable programs shall comply with Federal and State rules and regulations, and Vestas-AWT Environmental, Health and Safety practices and procedures.
- 3.4 The Subcontractor shall provide employees with training in hazard recognition and identification and the authorization necessary for them to take immediate corrective action of noted unsafe practices and/or conditions.

4. EHS Discipline Policy

The Subcontractor and its employees and representatives are required to comply with all aspects of this document.

Failure of the Subcontractor or its employees or representatives to adhere to, and comply with, the requirements of this document, will subject such persons to the Environmental, Health & Safety (EHS) site discipline policy.

The EHS discipline policy will utilize a three step process for minor infractions.

- **1st Step - Verbal Warning:** The verbal warning shall be considered administered upon acknowledgement and signing of this contract. This warning shall be communicated by the Subcontractor to all its employees and representatives prior to commencing work on the project. The verbal warning will again be communicated, and acknowledgement documented, during the Subcontractor employee and representative site orientation.
- **2nd Step - Written Warning:** The second step in the process is the written warning by the Subcontractor to its employee and/or representative. A copy of the written warning will be submitted to the Vestas-AWT Construction Manager for review and appropriate action. Such action by Vestas-AWT Construction Manager, may result in, but not limited to, employee and/or representative re-orientation and/or retraining, removal from the project or other appropriate action as deemed necessary.
 - Re-orientation and retraining will be conducted by the Subcontractor and be attended by both the violator and his/her Supervisor or Foreman.
 - This re-orientation and retraining will provide the employee and/or representative with a review of the Environmental, Health & Safety practices and procedures to ensure and Injury Free Workplace.
- **3rd Step - Immediate Removal:** Repeat of minor or major infractions of Vestas-AWT and/or Subcontractor Environmental Health & Safety practices and/or procedures will result in the immediate removal of the violator from the project site.
 - Vestas-AWT reserves the right to demand the removal of a Subcontractor employee or representative for the violation of any Environmental Health & Safety standard that results in imminent danger to the employee and/or others.
 - Immediate removal from the project site may include transfer, suspension, or termination of the employee, depending on the severity of the violation.
 - Upon determination for immediate removal, it is the Subcontractor's responsibility to expeditiously remove the employee from the project site, with a minimum impact on the order and production of the project.
 - Any Supervisor, General Foreman, Superintendent, or Construction Manager who forces or directs any employee to violate an Environmental, Health & Safety practice and/or procedure, will be removed from the Project.



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 7 of 25

5. Drug Free Workplace Program

Vestas-AWT participates in a Drug Free Workplace Program, which is currently administered by a third party. The Subcontractor is responsible to ensure it has its own program in place, prior to performing work with Vestas – AWT. It should be noted that the Subcontractor cannot take part in Vestas – AWT's Drug Free Workplace Program in lieu of their own program.

5.1 Subcontractor Drug Free Workplace Program Scope

Subcontractors will ensure all their employees and representatives performing work on the project site, are drug and alcohol free. To support the intent of Vestas – AWT's Drug Free Workplace, the Subcontractor will have an internal written, substance abuse program, which addresses, at minimum, the guidelines and requirements outlined in this document. Vestas-AWT's Drug Free Workplace Administrator will review, approve, and file the Subcontractor program prior to the commencement of any work on the project site.

- **NOTE:** The Subcontractor shall include the provisions of this Drug Free Workplace program requirement in every subcontract and require that his subcontractors include it in their contracts so that such provisions will be binding upon each subcontractor.

5.2 Testing Frequency and Methods

The Subcontractor Drug Free Workplace program will provide for one of the following drug screening frequency and methods.

- **Method One: Random Drug Screening:** Employees are selected at random for testing a minimum of twice during each calendar year.
- **Method Two: Scheduled Drug Screening:** Employees are tested at minimum once every six months during a twelve-month period.

5.3 Program Minimum Test Panel Standards

The Subcontractor Drug Free Workplace program must employ the urine drug panel procedure. This procedure tests for the controlled substances listed below.

5.4 Drug Testing Cut-off Levels:

Substance or Class	Initial Screening Cut-off	Confirmation Cutoff
Amphetamines	1000 ng/mL	500 ng/mL [1]
Barbiturates	200 ng/mL	200 ng/mL [2]
Cocaine	300 ng/mL	150 ng/mL
Ethanol (alcohol)	0.02 g/L	0.02 g/L [3]
	0.02 g/210 L	0.02 g/210 L [4]
Marijuana (THC)	50 ng/mL	15 ng/mL [5]
Opiates	2000 ng/mL [6]	2000/10 ng/mL [7]

[1] If methamphetamine only exceeds 500 ng/mL, specimen must also contain amphetamine at a concentration greater than or equal to 200 ng/mL

[2]
[3]
[4]
[5]
[6]
[7]

Confirmation metabolite: benzoylecgonine

Cut-off for alcohol in urine

Cut-off for alcohol in breath

Confirmation metabolite: delta-9-tetrahydrocannabinol-9-carboxylic acid

Gas chromatography/mass spectrometry cut-off for codeine/morphine

Confirmation cut-offs for codeine/morphine and 6-acetylmorphine

These levels are subject to change without notice based on changes in the "Procedures for Transportation Workplace Drug and Alcohol Testing Programs," 49 CFR Part 40. Other drugs may be tested for under special circumstances.

The substances and screening thresholds (cut-off values), in the Subcontractor's Drug Free Workplace program, will be consistent with the above outlined minimum requirements.

5.5 Pre-Construction Verification Requirements

Verification will be made in writing to Vestas-AWT that each of the Subcontractor's employees and representatives has been identified as drug and alcohol free prior to the commencement of work by the Subcontractor's employees and representatives. This requirement may be met in one of the following two ways.

1. Distribute drug free certification cards to each employee and representative and provide Vestas AWT with copies of each card. The card must include Subcontractor and employee/representative names, and date of current test and/or expiration date of drug free card.
2. Submit on company letterhead, a complete list of the certified drug and alcohol free employees and representatives. The listed information will include the employee/representative names, and date of current test and/or expiration date of drug free status. Vestas-AWT reserves the right to obtain additional information to confirm Subcontractor compliance.
 - **Note:** No Subcontractor employee or representative will be authorized to perform work on the project site until proof of a current and valid (within six months or less) drug screen is provided.

5.6 Incidents and Reasonable Suspicion

Adequate provisions will be included in the Subcontractor Drug Free Work Place program for employee testing for drugs and alcohol:

- If an employee is involved in an incident and/or where reasonable suspicion of impairment is indicated.
- When involved in an incident resulting in injury and treatment by a physician, an employee will be tested prior to being released to return to work.
- When behavior and fitness for duty concerns are observed, and employee will be removed from the site and tested for reasonable suspicion of impairment, prior to being released to return to work.

5.7 Positive Test Results

Any Subcontractor employee or representative whose drug screen results indicate a positive test for substance abuse shall be immediately removed from the project site. The Subcontractor has the full responsibility to remove that employee or representative in a prompt and orderly manner.

- An employee who has been removed from the site for a positive test will not be permitted to return to work until the Subcontractor's authorized Employee Assistance Program (EAP) and/or its Drug Free Workplace counseling service have released him, in writing.
- Vestas-AWT reserves the right to deny an employee's return to work on a case-by-case basis.

5.8 Financial Obligations

All costs connected with the development, implementation and administration of the Subcontractor's Drug Free Workplace program, will be the sole responsibility of the Subcontractor. These costs include, but are not limited to the following:

- Employee pay and benefits for the time to and from the collection site.
- Transportation to and from the collection site.
- Collection of the sample and laboratory analysis.
- Other services related to the Subcontractor Drug Free Workplace program.

5.9 Subcontractor Non-Compliance

In the event of Subcontractor non-compliance with all the conditions outlined in Section 5, the Subcontract/Subcontractor's contract may be canceled, terminated, or suspended, in whole or in part. Subsequent to this action, Vestas-AWT may complete the work and invoice the cost to the Subcontractor.

6. Training Requirements

6.1 New-Hire Safety Orientation

Subcontractor employees and representatives entering the site for the first time must attend the job-site safety orientation before that employee or representative performs any work. Every new employee will complete a Vestas-AWT Project Safety Orientation Checklist or one meeting the intent of this requirement.

6.2 Drug Free Workplace Testing



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 10 of 25

As outlined in Section 5 of this document, all Subcontractor employees and representatives will be certified drug and alcohol free prior to performing work on the jobsite.

6.3 First Aid/CPR

The Subcontractor will designate in writing the name of at least one employee (for every ten employees) currently trained and certified in CPR/First Aid, through an approved program.

- Training will be conducted and certified through EMP America, American Red Cross, or other recognized programs.
- Proof of current training will be provided to Vestas – AWT.
- For each additional ten employees another employee will be designated in writing.

6.4 Hazard Communication (Haz-Com)

Subcontractors' employees and representatives must be properly trained in, and informed of, the identification and characteristics of potential health risk and hazards, and the safe use and handling of all hazardous chemicals, materials, and substances they will handle and work with, or will possibly come in contact with on the jobsite.

- The Subcontractor shall conduct follow-up training and provide undated information with the introduction of any new hazardous chemical, material, or substance to the jobsite, or as otherwise indicated.
- Vestas-AWT will be provided with copies of the Subcontractor (Haz-Com) training documentation.

6.5 Foreman Training/Meetings

Depending on the subject requirements, schedule and scope of work, Subcontractor Foremen/Supervisors may be required to attend a weekly Foremen Training and/or Meeting administered by Vestas – AWT.

- Training sessions and meetings will be limited to a maximum of one (1) hour per week.
- Training and meetings will primarily focus on required Environmental, Health & Safety training, Injury Free Workplace issues, and planning for the upcoming phases of the project.

6.6 Subcontractor Assistance

Upon written request from the Subcontractor, Vestas-AWT may assist the Subcontractor in training of Subcontractor's employees and representatives in specific areas of Environmental, Health & Safety to enhance the Injury Free Workplace process. Such training will be limited to those areas deemed by Vestas-AWT to be consistent with its responsibility as CM/EPC and mutually beneficial to the general workforce.

7. Meeting Requirements

7.1 Training/Meeting Matrix



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 11 of 25

The Vestas-AWT Training and Meeting Matrix (refer to Section 14.5.3 of this document) is provided to outline the minimum training and meeting expectations for the project. The Subcontractor shall review and integrate these training and meeting expectations into their Environmental Safety and Health Program. Should additional training and meeting requirements become necessary as the project develops, Vestas will advise the Subcontractor.





RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 12 of 25

7.2 Vestas-AWT Weekly Safety Meeting

In keeping with its commitment to an Injury Free Workplace, Vestas-AWT will conduct a weekly safety meeting which will be attended by all Subcontractor employees and representatives on the project.

- The meeting will be limited to 20-minutes.
- Meetings will be conducted every Monday morning at shift start, unless the Vestas-AWT Construction Manager directs otherwise.

7.3 Subcontractor Weekly Tailgate/Tool Box Safety Meeting

Subcontractors will administer a separate Weekly Tailgate/Toolbox Safety Meeting, to address Environmental, Health & Safety issues specific to their trade, scope, and phase of work. The Subcontractor will submit a copy of the safety meeting minutes and the names of those in attendance to Vestas-AWT weekly.

8. Documentation

Each subcontractor will be required to maintain the following documentation on the jobsite and provide Vestas-AWT with copies of such records as noted below.

Daily Injury and Illness Reporting: Subcontractors shall record all injuries and illnesses resulting from incidents on the job, regardless of severity and level of subsequent treatment.

9. OSHA- Form 300 Log

OSHA Form 300 record able injury log shall be kept on file in the Subcontractor's office.

9.1 Incident Report

A Supervisors Incident Report (SIR) shall be filed with Vestas-AWT for all incidents resulting in injury, property damage, and near misses with serious potential for either. Verbal notification of the incident shall be made immediately after the occurrence of the incident, followed by a written report submitted to Vestas-AWT within 24 hours.

9.2 Weekly Safety Meeting Minutes

Each contractor will provide Vestas-AWT with a copy of the Subcontractor's weekly safety meeting minutes within twenty-four (24) hours of the safety meeting.

9.3 Assured Grounding Notice

Vestas-AWT will be provided with a notice from the Subcontractor indicating completion of the quarterly assured grounding testing of electrical equipment. The notice will be submitted within one week of completion of the testing. (Refer to Section 14).

9.4 Material Safety Data Sheets (MSDS)

Subcontractor's employees and representatives will not bring, come in contact with, use, move, disturb, generate, store, transport or otherwise in any way deal with hazardous substances at the project site without the prior knowledge of the Vestas-AWT Construction Manager.

- Vestas-AWT will be provided with the MSDS for all hazardous substances before the Subcontractor's employees and representatives bring, move, disturb, generate, store, transport or otherwise deal with any such substances at the project site.
- The Subcontractor will keep an active file of all material safety data sheets (MSDS) used by that subcontractor.

9.5 Phased Safety Plan

Vestas-AWT requires a phased safety plan to be developed for the project by the subcontractor. The Subcontractor must submit the safety plan to Vestas-AWT Site Manager and HSE Department prior to starting work.

- **Job Safety Analysis (JSA):** This process and format (refer to Section 14.5.4 of this document) will be used to identify the steps of the job, inherent hazards and a description of how the work will be performed safely. The Subcontractor will utilize the JSA to train all affected workers prior to commencing work. JSA's will be submitted to Vestas-AWT for review and approval prior to starting work.
- **Pre Task Planning (PTP):** Using the JSA, pre-task planning will be conducted daily by the supervisor and crew, to further identify the current task, working conditions and preventive measures to be taken to protect workers.

9.6 Daily Diaries

A Subcontractor Daily Job Diary (refer to Section 14.5.5 of this document) shall be completed and submitted to Vestas-AWT on a daily basis by the supervisor/foreman of each crew working on the project. The report consists of total manpower, man-hours worked, and limitations to performance of work, location of work and safety issues noted.

10. Incident, Injury and Emergency Procedures

10.1 Incidents and Injury Reporting:

Subcontractors shall immediately report to Vestas-AWT all incidents and injuries affecting their employees and representatives. Any first-aid services will be recorded on the subcontractor's Daily First-Aid Log.

10.2 Medical Treatment:

The Subcontractor is responsible to ensure an injured worker requiring medical treatment is provided with transportation to and from the medical facility. The Subcontractor may use a medical provider of their choice unless Vestas-AWT Construction Manager determines otherwise.

10.3 Incident Investigation Review and Report-Out

Incidents will be investigated and reviewed by Vestas-AWT and the Subcontractor. At minimum, the chronology of events, contributing factors, root cause, and corrective action plan will be outlined and reported. A final report will be submitted to Vestas-AWT within 24 hours of the incident. If information is lacking, a preliminary report will be filed.

10.4 Injury Management

The Subcontractor shall assist Vestas-AWT in all areas of injury management, with the greatest emphasis placed on incident prevention. A proactive approach and total acceptance of the Injury Free Workplace philosophy and process is the key focus.

11. Personal Protective Equipment

Vestas-AWT personal protection equipment (PPE) requirements apply to the subcontractor and all its employees, lower tier contractors, vendors, suppliers, and visitors.

- **Note:** The Subcontractor is solely responsible for providing all its employees and representatives with the appropriate site required personal protective equipment.

Vestas will not provide PPE to the Subcontractor's employees, representatives or visitors.

11.1 Clothing

Full length, non-cuffed pants will be worn. No shirts with sleeve length less than "T" shirt length will be worn at any time.

11.2 Footwear

Over the ankle, sturdy, work boots made of leather and/or other substantial synthetic materials, will be worn at all times. Should steel toes and/or other special safety features be required, Vestas-AWT will notify the Subcontractor.

11.3 Eye Protection

Eye protection (safety glasses) will be worn at all times. Safety glasses must meet ANSI Z-87.1 requirements. Prescription lenses and frames must meet the same requirements. Job specific hazards may require additional protection to include, but not limited to, use of goggles when handling hazardous chemicals.

11.4 Hearing Protection

Hearing protection (ear plugs or ear muffs) will be worn by employees when working in high-noise areas and/or when operating high-noise emitting tools or equipment. On Vestas-AWT projects, high noise is defined as that which measures over 80-decibels.

11.5 Head Protection

All employees are required to wear head protection at all times except in designated "safe areas". This includes contractors, lower tier contractors, vendors, suppliers, and visitors. Head protection must meet ANSI Z89.1 Class "B" head protection guidelines.

12. Fall Protection

Vestas-AWT's Fall Protection Plan focuses on the elimination of the fall hazard as its first priority. The use of personal protective equipment (PPE) fall protection systems will be authorized only as a last resort. PPE will be utilized only after a thorough analysis of the fall hazard has been made and it is determined no other method to eliminate the hazard is feasible and/or possible.

12.1 100% Fall Protection

The Subcontractor will provide 100% fall protection to its workers when they are exposed to a potential fall of over 6-feet. **There are no exceptions to this requirement.**

12.2 Fall Protection Plan

When a fall potential of over 6-feet exists, the Subcontractor will develop a fall protection plan which addresses how the worker will be protected from falling.

12.3 Engineering and Administrative Controls

The Subcontractor fall protection plan will first take into consideration preventive measures such as standard guarding, boom scissor lifts, scaffolding, and other methods of protection before resorting to PPE systems.

12.4 Personal Protective Equipment

When all other protection systems have been considered and found unfeasible, the exposed workers must wear PPE. Whether in a restraint or fall arrest mode, an approved full body harness will be worn. **Safety belts are not approved for use on Vestas-AWT projects.**

- Fall "restraint" is the preferred method of fall protection when a harness is worn; the fall arrest method is the last resort in all fall protection plans.
- An approved lanyard will be secured to a rigged restraint line and/or anchor point.
- Lanyard hooks must be the double-lock type.

12.5 Training

The worker will be trained on fall protection issues, to include the proper care, wear and use of personal protective equipment, specifically the harness, lanyard and other equipment used for fall restraint and arrest applications.

- The worker shall be made aware of his/her obligation to wear and use a full body harness and associated equipment when the work task dictates.
- A worker observed not tying off at all times, will be subject to **immediate removal from the site.**
- The worker will acknowledge his/her understanding of this policy, and responsibility to work accordingly, by signing a statement to that effect.

13. Housekeeping

Good housekeeping is essential to the success of Vestas-AWT's Injury Free Workplace policy. A neat and clean job-site prevents incidents that result in injury. The Subcontractor, in partnership with Vestas-AWT, is responsible for maintaining the work site in a clean/safe condition.

13.1 Daily Requirement

The Subcontractor will perform housekeeping on a continual basis and will ensure its work areas are kept free from construction debris in accordance with the Project housekeeping requirements.

14. Additional Program Requirements

14.1 Overhead Work

Controlled access zones will be established where overhead work is underway to ensure workers are not exposed to falling equipment or material. Substantial barricades will be installed and signs posted to prevent workers or others from inadvertently entering these controlled access zones.

14.2 Electrical Safety

Temporary GFCI systems shall be utilized to eliminate electrical shock hazards.

- Electrical cords and equipment shall be tested in accordance with the Assured Grounding standards outlined in State and Federal OSHA regulations.
- A test for continuous circuitry shall be performed on all cord sets, receptacles not part of the permanent wiring of the facility or structure, and plug-connected equipment required to be grounded.
- Electrical equipment shall be visually inspected daily for external defects. Equipment found to be in need of repair shall be removed from service until repaired and tested.

14.3 Hazardous Chemicals and Materials

The Subcontractor is responsible for the procurement, transport, storage, handling, use, and disposal of all hazardous chemicals and/or materials required to perform its scope of work. When possible, the Subcontractor shall substitute and utilize a less hazardous chemical and/or material to minimize potential exposure to employees and the environment. Additionally, the Subcontractor shall comply with the following guidelines.

- Notify Vestas-AWT prior to bringing a hazardous chemical and/or material on the project site.
- Provide Vestas-AWT with a corresponding and current Material Safety Data Sheet (MSDS).
- Identify the contents of all containers and label accordingly.
- Train employees in the safe use and handling of the hazardous chemical and/or material.
- Develop a spill containment and cleanup procedure. Train affected employees.
- Store flammable liquids (quantities over 5-gallons) in a designated storage area.

14.4 Hazardous and Non-Hazardous Waste Control

The Subcontractor shall ensure proper handling and disposal of all hazardous and non-hazardous waste. Recycling of non-hazardous waste is encouraged and where possible separation of metal, wood, cardboard, and other recyclable material will be performed. Additionally, the Subcontractor shall comply with the following guidelines.

- Remove all non-hazardous waste from the work area daily and dispose in designated containers.



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 17 of 25

- Store and dispose of hazardous waste in accordance with State and DEQ and OSHA regulations.
- Collect and remove all hazardous and non-hazardous waste, and/or unused chemicals and materials, from the project site prior to completion of work and departure from the site.

14.5 Fire Prevention and Protection

The Subcontractor shall provide adequate fire prevention and protection procedures and equipment to protect workers and property. Fire prevention methods, such as good housekeeping, will be the first line of defense against fire.

- The Subcontractor will notify the Vestas-AWT Construction Coordinator of any fire in its area of operation immediately, even if it has been contained and extinguished.
- Fire extinguishers must be of the appropriate size and fire retardant to provide effective protection for the combustible or flammable fire hazard present.
- In addition to fire protection equipment, the Subcontractor will provide a designated fire-watch for all related hot-work activities.



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 18 of 25

14.5.1 Subcontractor Checklist

- | | |
|--|--|
| <input type="checkbox"/> Airborne Contaminant Control | <input type="checkbox"/> Housekeeping |
| <input type="checkbox"/> Barricading & Safety Signage | <input type="checkbox"/> Hot Work (Electrical) |
| <input type="checkbox"/> Confined Space Entry | <input type="checkbox"/> Hot Work (Non-Electrical) |
| <input type="checkbox"/> Cranes, Hoist & Rigging | <input type="checkbox"/> Incident Emergency Response |
| <input type="checkbox"/> Operations | <input type="checkbox"/> Incident Reporting & Review |
| <input type="checkbox"/> Disciplinary Policy | <input type="checkbox"/> Ladder/Scaffolding/Aerial Lifts |
| <input type="checkbox"/> Drug Free Workplace | <input type="checkbox"/> Material Handling (Hazardous) |
| <input type="checkbox"/> Environmental Protection | <input type="checkbox"/> Material Handling (Non-Hazardous) |
| <input type="checkbox"/> Ergonomics & Body Mechanics | <input type="checkbox"/> Personal Protective Equipment (PPE) |
| <input type="checkbox"/> Equipment & Power Tool Safety | <input type="checkbox"/> Respiratory Protection |
| <input type="checkbox"/> Excavation & Trenching | <input type="checkbox"/> Safety Audits & Inspections |
| <input type="checkbox"/> Fall Protection & Prevention | <input type="checkbox"/> Vehicle & Equipment Traffic Control |
| <input type="checkbox"/> First Aid & Medical Treatment | <input type="checkbox"/> Waste Management (Hazardous) |
| <input type="checkbox"/> Hazard Communication | <input type="checkbox"/> Waste Management (Non-Hazardous) |
| <input type="checkbox"/> Hazardous Energy LOCK/TAG OUT | <input type="checkbox"/> Hearing Conservation |



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 19 of 25

14.5.2 Orientation Checklist

Employee :(please print) _____

Date: _____

Company: _____

Logistics

- | | |
|--|--|
| <input type="checkbox"/> Parking | <input type="checkbox"/> Weather |
| <input type="checkbox"/> Lunch areas | <input type="checkbox"/> Working times |
| <input type="checkbox"/> Restroom facilities | <input type="checkbox"/> Harassment |
| <input type="checkbox"/> Job phones #'s | <input type="checkbox"/> Smoking/Chewing |
| <input type="checkbox"/> First aid station | <input type="checkbox"/> Safe Work Zones |

Injury Free Workplace

- | | |
|---|--|
| <input type="checkbox"/> Vestas-AWT Mission Statement | <input type="checkbox"/> Employee Motivation/Recognition |
| <input type="checkbox"/> Injury Free Philosophy | <input type="checkbox"/> Management Involvement |
| <input type="checkbox"/> Pre-Task Planning (PTP) | <input type="checkbox"/> Communication |
| <input type="checkbox"/> Risk Assessments (JSA) | <input type="checkbox"/> Training Requirements |
| <input type="checkbox"/> Incident Review Process | <input type="checkbox"/> Discipline |
| <input type="checkbox"/> Drug/Alcohol Free Workplace | <input type="checkbox"/> |

Safety Meetings/Audits

- | | |
|---|--|
| <input type="checkbox"/> Daily Safety Audits | <input type="checkbox"/> Project Safety Leader Team (SLT) |
| <input type="checkbox"/> Incident Reviews | <input type="checkbox"/> Vestas-AWT Safety Leadership Team |
| <input type="checkbox"/> Safety Self Assessment (SSA) | <input type="checkbox"/> Daily-Tailgate Safety Meetings |
| <input type="checkbox"/> Safety Committee Meeting (Monthly) | <input type="checkbox"/> Weekly Safety Meetings |

Incident/Accident/Near Miss Reporting

- | | |
|---|---|
| <input type="checkbox"/> Evacuation and assembly area | <input type="checkbox"/> Serious injuries – Call 911 |
| <input type="checkbox"/> Report near misses, accidents, and incidents, and all first aids | <input type="checkbox"/> Correct and/or report all safety concerns/hazards immediately! |
| <input type="checkbox"/> Site Specific radio/phone procedures | <input type="checkbox"/> Spills – leaking equipment/containers /environment |
| <input type="checkbox"/> Report all injuries to your supervisor | <input type="checkbox"/> Emergency Response Plan |
| <input type="checkbox"/> Fire | |



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 20 of 25

Personal Protective Equipment (PPE)

- ☐ Head Protection (Hardhats)
- ☐ Eye Protection (Safety Glasses)
- ☐ Hand Protection (Appropriate Gloves)
- ☐ Foot Protection (Work Boots)
- ☐ Reflective Vests (as Required) Sleeved Shirts
- ☐ Respiratory Protection

Hazard Communication (HazCom)

- ☐ Location of hazardous materials
- ☐ Physical and health hazards
- ☐ ☐ Recognizing overexposure or emergency
- ☐ Understanding MSDSs
- ☐ Personal Protective Equipment
- ☐ Location of MSDSs

Personal Fall Protection

- ☐ No exposure to a fall 6 feet or greater.
- ☐ Use of full body safety harness only – no body belts
- ☐ Ladder Safety
- ☐ Failure to comply with Vestas-AWT Fall Protection Requirements is subject to immediate termination/removal from job site.

Specific Job Hazard Requirements

- ☐ First Aid/CPR & Blood borne Pathogens
- ☐ Housekeeping
- ☐ Assured Equipment Grounding – GFCI
- ☐ Lock Out/Tag Out
- ☐ Operators of all mobile equipment must be trained, qualified, and carded i.e. Forklifts, Articulating lifts, Cranes
- ☐ Traffic
- ☐ Work Zone Safety Caution Tape/Danger Tape
- ☐ Hot Work/Confined Space
- ☐ Material Lifting

Employee Signature: _____ Date: _____

Supervisor Signature: _____ Date: _____



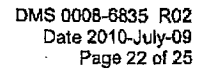
RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 21 of 25

14.5.3 Training/Meeting Matrix

Training	Time Frame	Frequency	Personnel
Safety Orientation	1 to 2 hours	Once	All Employees
D/A Testing	Up to 2 Hours	Once Every 6 Months	All Employees
Task Specific	2 Hours	As Necessary	All Employees
First Aid/CPR Training	8 Hours	Once	All Foreman, Superintendent, Safety Rep.
Hazardous Material Training - By Subcontractor	1 Hour	As Necessary	Subcontractor Employees and other Personnel that may be Exposed to Hazardous Materials
Foremen Training/Meetings	1 Hour	Weekly	All Foreman, Superintendent,

Meetings	Time Frame	Frequency	Personnel
Pre-task Planning	20 minutes	Daily	All Field Personnel
Safety Walks Audit	1 hour	Weekly	All Supt./ Foreman/PM
Vestas-AWT Weekly Safety Meeting	20 Minutes	Weekly	All Personnel
Subcontractors Safety Meeting	20 Minutes	Weekly	All Subcontractors Field Personnel
Schedule Meeting	1 Hour	Weekly	All Superintendents / GF
Safety Leadership Team	2 Hours	Monthly	Senior Managers
Incident Review	1 to 4 Hours	For Every Incident & Near Miss	All Foreman, Superintendent, Safety Rep. & Personnel Involved





RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 23 of 25

14.5.5 Subcontractor Daily Job Diary

Work Date:	Day of Week:
Company Name:	
Location of Work:	
Hindrance to Work Progress:	
Total Workers on Site:	Total Man-hours
Incident(s):	DESCRIPTION:
Injury(s)	
Report by:	
Site Phone #:	



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 24 of 25

14.5.6 Subcontractor Acknowledgement and Agreement

Project Name _____ Project #: _____

The Subcontractor _____ has a subcontract with Vestas – American Wind Technology, Inc. to perform certain specific labor on this Project. Said Subcontractor is required to ensure all its employees, subcontractors, suppliers, agents and representatives performing labor on this Project, comply with the Subcontractor Environmental, Health & Safety Requirements in its entirety.

The Subcontractor has read and understands the conditions outlined herein. Further, the Subcontractor agrees to be bound by, and comply with, all terms and provisions, and assumes the responsibility for all associated costs to implement these requirements.

The Subcontractor agrees to inform its crew(s) actually performing the work of the contents of the Subcontractor Environmental, Health & Safety Requirements and this agreement prior to reporting to work on the project.

Accepted and Agreed to this _____ Day of _____ Year _____

Vestas - American Wind Technology, Inc.
Contractor

By _____
Name of Vestas-AWT Representative

Title

Subcontractor

By _____
Name of Subcontractor Representative

Title



RESTRICTED TRADE SECRET & CONFIDENTIAL
**VAME Subcontractor
Requirements**

DMS 0008-6835 R02
Date 2010-July-09
Page 25 of 25

15. History of this Document

Rev. no.:	Date:	Description of changes
00	20-Nov-2003	First edition – Reformatted and Renumbered 21-May-07
01	01-Jan-2010	Template updated
02	09-July-2010	Title changed from "American Subcontractor Requirements" to "VAME Subcontractor Requirements". References to JHA replaced with references to JSA. References to sections of same document corrected. Former Section 10.3 – Early Return to Work deleted. Minor wording changes to Section 9.5.

TRADE SECRET & CONFIDENTIAL

TRADE SECRET & CONFIDENTIAL



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 1 of 15

Vestas American Wind Technology, Inc. is specifically interested in the health, safety, and environmental performance of all contractors and their employees who work for our company. Your response to this questionnaire and self-assessment will help us assess your company's overall HSE program and performance.

Background Information

Name of Company: _____

Address: _____

Telephone: _____

FAX: _____

Questionnaire Completed By: _____

Date: _____

Title: _____

Email: _____

Secondary Contact: _____

Title: _____

Email: _____

Check the type(s) of service your company performs:

☐ Exterior Tower Work
☐ Construction
☐ Consulting
☐ Crane Service
☐ Electrical
☐ Engineering
☐ Equipment Rental
☐ Fabrication
☐ General Maintenance
☐ Other: _____

☐ Inspections
☐ Insulation
☐ Mechanical
☐ Painting / Abrasive Blasting
☐ Labor, managed
☐ Trucking
☐ Waste Disposal
☐ Welding
☐ Janitorial
☐ Other: _____

Has your company worked for any Vestas company in the past?

☐ Yes

☐ No

If yes, which one(s)? _____



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 2 of 15

The following HSE Questionnaire represents the elements and sub-elements that should be present in a contractor's HSE Management System (MS) or Plan to satisfy the Vestas HSE Policy requirement.

Element 1: Leadership and Commitment

(i) Commitment to HSE Through Leadership

1. How are senior managers personally involved in HSE management?

2. Provide evidence of commitment at all levels of the organization:

3. How do you promote a positive culture towards HSE matters?

Additional Comments:

Self Assessment - Commitment to HSE through leadership: Element 1(i) Questions 1-3

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No commitment from senior management	HSE disciplines delegated to line managers – no direct involvement by senior management	Evidence of active senior management involvement in HSE aspects	Evidence of a positive HSE culture in senior management and at all levels

Element 2: Policy and Strategic Objectives

(i) HSE Policy Documents

4. Does your company have an HSE policy document? If the answer is YES please attach a copy.

5. Who has overall and final responsibility for HSE in your organization?

6. Who is the most senior person in the organization responsible for this policy being carried out at the premises and on site where his employees are working? Provide name, title and experience.

(ii) Availability of Policy Statements to Employees

7. Itemize the methods by which you have drawn your policy statement to the attention of all your employees.

8. What are your arrangements for advising employee of changes in the policy?



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 3 of 15

Additional Comments: _____			
Self Assessment - HSE policy documents and availability: Element 2(i) and 2(ii) Questions 4 - 8			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No written HSE policy	A policy statement exists but not in a widely distributed document	HSE policy establishes responsibility for HSE, but not widely distributed	Policy with clearly established responsibility and accountability; is distributed to all employees; and is visible on notice boards
Element 3: Organization, Responsibilities, Resources, Standards & Documentation			
(i) Organization, Commitment and Communication			
9. How is management involved in HSE activities, objectives and monitoring? _____			
10. How is your company structured to manage and communicate effectively? _____			
Additional Comments: _____			
11. What provision does your company make for HSE communication meetings? _____			
Additional Comments: _____			
Self Assessment - HSE Communication and Meeting Programs: Element 3(i) Questions 9 - 11			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
None	Periodic HSE meetings for special operations only	HSE meetings performed on a regular basis at management and supervisor level	In addition to C, employees are assigned topics to discuss on a rotational basis
(ii) Competence and Training of Managers, Supervisors, Senior Staff and HSE Advisors			
12. Have the managers and supervisors at all levels who will plan, monitor oversee and carry out the work received formal HSE training in their responsibilities with respect to conducting the work to HSE requirements? If the answer is yes, give details. Where the training is given (e.g. in-house, training consultant). Please describe the content and duration of courses. _____			
Additional Comments: _____			
Self Assessment - Staff HSE Training: Element 3(ii) Question 12			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 4 of 15

No specialized staff training	HSE training assigned to a specific person on location	HSE training applied to management but not comprehensively covered	HSE training given formally to all relevant staff on their respective responsibilities
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Element 3 Continued**(iii) Competence and General HSE Training**

13. What arrangements does your company have to ensure new employees have knowledge of basic industrial HSE, and to keep this knowledge up-to-date?
- _____
14. What arrangements does your company have to ensure new employees also have knowledge of your HSE policies and practices?
- _____
15. What arrangements does your company have to ensure new employees have been instructed and have received information on any specific hazards arising out of the nature of the activities? What training do you provide to ensure that all employees are aware of company requirements?
- _____
16. What arrangements does your company have to ensure existing staff HSE knowledge is up-to-date? If training is provided in-house please give the details of the content).
- _____

Additional Comments:

Self Assessment - Employee Orientation and Training Program: Element 3(iii) Questions: 13 - 16

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No formal program	Verbal instructions on company procedures only; Orientation booklet provided for new employees but no on-the-job orientation by supervisor	Employee handbook provided and supervisor outlines, explains and demonstrates new employee's job	All under C together with: follow-up observation of the new employee's work is also included. Employee has explained to him safe practices and emergency duties

Element 3 Continued**(iv) Specialized Training**

17. How have you identified areas of your company's operations where specialized training is required to deal with potential hazards? (Please itemize and provide details of training given).
- _____
18. If specialized work involves occupational health hazards (e.g. radioactive, asbestos, chemical, etc.), how are the hazards identified, assessed and controlled?
- _____

(v) HSE Qualified Staff - Additional Training



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 5 of 15

19. Does your company employ any staff that possesses HSE qualifications that aim to provide training in more than basic requirements?

Additional Comments:

Self Assessment - Specialized Training: Element 3(iv) and (v) Questions 17 - 19

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No HSE training established	On-site basic training conducted occasionally	HSE training is given for specialized operations, but no routine training conducted	Formal HSE training programs have been developed in all areas and are conducted on a regular basis. Retraining periods are established

Element 3 Continued

(vi) Assessment of Suitability of Sub-contractors or Other Companies

20. How do you assess:

a) HSE competence of your sub-contractors?

b) HSE record of the sub-contractors and companies with whom you place contracts?

21. Where do you spell out the standards you require your contractors to meet?

22. How do you ensure these standards are met and verified?

Additional Comments:

Self Assessment - Sub-Contractors: Element 3(vi) Questions 20 - 22

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No written arrangements	Written arrangements in place for basic HSE matters only	HSE arrangements incorporated in HSE manual but not in a format which is distributed to all employees	HSE arrangements exist in handbook form, distributed to all employees, subcontractors and their employees and enforced. Follow-up audits held with discussion / feedback to management/employees

Element 3 Continued

(vii) Company HSE Standards



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 6 of 15

23. Where do you spell out the HSE performance standards you require to be met?

24. How do you ensure these are met and verified?

25. How do you identify new industry or regulatory standards that may be applicable to your activities?

26. Is there an overall structure for producing, updating and disseminating standards?

Additional Comments:

Self Assessment - Company HSE Standards: Element 3(vii) Questions 23 - 26

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No HSE standards available	Basic HSE standards exist	Contractor has written HSE standards to cover all hazardous operations	Contractor has a system of specifying, monitoring compliance and updating standards

Element 4: Hazards and Effects Management

(i) Hazards and Effects Assessment

27. What techniques are used within your company for the identification, assessment, control and mitigation of hazards and effects?

Additional Comments:

Self Assessment - Hazards and Effects Assessment: Element 4(i) Question 27

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
Company's HSE system does not include hazards and effects assessment	Company's HSE system makes reference to the need to assess hazards and effects but has no comprehensive structure to carry this out	Company's HSE system includes methods for the assessment of major hazards and effects	Company's HSE system has a comprehensive set of methods for the assessment of all HSE hazards and effects and applies them to all of its contracts with documentation

(ii) Exposure of the Workforce

28. What systems are in place to monitor the exposure of your workforce to chemical or physical agents?

Additional Comments:

Self Assessment - Exposure of the workforce: Element 4(ii) Question 28

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
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HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 7 of 15

Company does not actively advise the workforce nor monitor exposure	Company advises the workforce of the major hazards that they are likely to be exposed to but only monitors exposure randomly	Company distributes information to individuals in the workforce at start of their involvement on-site	Company has a set of formal methods for monitoring exposure to all foreseeable hazards (linked to its hazards and effects management method) and applies them to all contracts
Element 4 Continued			
(iii) Handling of Chemicals			
<p>29. How is your workforce advised on potential hazards (chemical, physical, biological hazards such as noise, r, temperature extremes, etc.) encountered in the course of their work?</p> <p>Additional Comments:</p>			
Self Assessment - Potential Hazards: Element 4(iii) Question 29			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
Company makes no special provision for advising the workforce about properties of potential hazards	Company provides information to workforce in the workplace on properties of potential hazards but has no active follow-up	Company distributes information to individuals in the workforce at the start of their involvement on-site	Company maintains a database of the properties of all potential hazards encountered in its contracts and has formal methods of information distribution to all personnel and trains its workforce in handling, etc.
(iv) Personal Protective Equipment			
<p>30. What arrangements does your company have for provision and upkeep of protective equipment and clothing, both standard issue, and that required for specialized activities?</p> <p>Additional Comments:</p>			
Self Assessment - Personal protective equipment: Element 4(iv) Question 30			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
Basic PPE provided to personnel but no corporate procedure for assessing individual needs	PPE requirements formally assessed but little effort made to ensure correct usage	PPE requirements formally addressed with spot checks on usage	Procedures in place to assess all PPE requirements monitor and enforce usage and replacement needs. Stock inventories monitored, kept above demand levels. Training in use provided where needed
Element 4 Continued			
(v) Waste Management			
<p>31. What systems are in place for identification, classification, minimization and management of waste?</p>			



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 8 of 15

Additional Comments: _____			
Self Assessment - Waste management: Element 4(v) Question 31			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
Company has no formal methods for the control of waste	Company has general procedures for waste disposal	Company has procedures for the disposal of each of the main categories of site wastes but makes no provision for minimizing environmental impact	Company has a formal system for waste management (including identification, minimization and classification), which actively seeks to minimize environmental impact
<p>(vi) Drugs and Alcohol</p> <p>32. Do you have a Substance Abuse Policy that prohibits the use, sale or possession of drugs and alcohol in your organization? If so, does it include pre-employment and random testing?</p> <p>Additional Comments: _____</p>			
Self Assessment - Drugs and Alcohol (Substance Abuse): Element 4(vi) Question 32			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
Company has no formal substance abuse program	Company has a basic drug and alcohol program that includes pre-employment testing	Company has a basic drug and alcohol program that includes pre-employment testing and post-accident testing	Company has a basic drug and alcohol program that includes pre-employment testing, post-accident testing, suspect of drug use testing and random testing.
Element 5: Planning and Procedures			
(i) HSE or Operations Manuals			
<p>33. Do you have a company HSE Manual (or Operations Manual with relevant sections on HSE) that describes in detail your company approved HSE working practices relating to your work activities? If the answer is yes, please attach a copy of supporting documentation.</p> <p>_____</p> <p>34. How do you ensure that the working practices and procedures used by your employees on-site are consistently in accordance with your HSE policy, objectives and arrangements?</p> <p>_____</p> <p>Additional Comments: _____</p>			
Self Assessment - HSE or operations manuals: Element 5(i) Question 33 & 34			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 9 of 15

No HSE procedures available	Basic HSE procedures exist	Contractor has written HSE procedures to cover all hazardous operations	Contractor has procedures to cover all HSE precautions, typical contractor HSE Plan requirements with a system of updating and dissemination to employees
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(ii) Equipment Control and Maintenance

35. How do you ensure that the equipment used within your premises, on-site or at other locations, by your employees are correctly registered and/or certified, controlled and maintained in a safe working condition?

Additional Comments:

Self Assessment - Equipment control and maintenance: Element 5(ii) Question 35

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No defined program to identify or evaluate hazardous practices and equipment conditions	Plan relies on outside sources, i.e. company inspections. Supervisory inspection of equipment confined to work site personnel only	A written program outlining supervisory guidelines, responsibilities, frequency and follow-up is in effect	In addition to C, periodic inspections conducted by top management or by teams of specialists

Element 5 Continued

(iii) Road Safety Management

36. What arrangements/programs does your company have for eliminating road and vehicle incidents?

Additional Comments:

Self Assessment - Road Safety Management: Element 5(iii) Question 36

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No special attention paid to road safety as an area of hazardous activities	Importance of road safety acknowledged but left to the core business managers / supervisors to enact individually	Company has a general management strategy with some procedures for its component issues	Company has a complete strategy and set of plans and procedures covering vehicles, drivers and operations management

Element 6: Implementation and Performance Monitoring

(i) Management and Performance Monitoring of Work Activities

37. What arrangements does your company have for supervision and monitoring of HSE performance?



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 10 of 15

38. What type of HSE performance criteria is used in your company? Give examples.

39. What arrangements does your company have for passing on results and findings of this supervision and monitoring to your:

a) Base Management?

b) Site Employees?

(ii) HSE Performance Achievement Awards

40. Has your company received any awards for HSE performance achievement?

Additional Comments:

Self Assessment - Management & Performance Monitoring of Work Activities: Element 6(i) & (ii) Questions 37 - 40

Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
No system for formally monitoring HSE performance	Performance monitoring in a few areas carried out	Company has a system for monitoring HSE performance in key areas	Company has a comprehensive system for monitoring performance in all areas with feedback to employers for improvement and has received awards for achievement

Element 6 Continued

(iii) Statutory notifiable incidents, dangerous occurrences

41. Has your company suffered any statutory notifiable incidents in the last 5 years (safety, occupational health or environmental)? Answer with details including dates, country, most frequent types, causes and follow-up preventative measures taken.

(iv) Improvement Requirement and Prohibition Notices

42. Has your company suffered any improvement requirement or prohibition notices by the relevant national body, regulatory body for HSE or other enforcing authority, or been prosecuted under any HSE legislation in the past 5 years? If your answer is yes, please give details.

Additional Comments:



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 11 of 15

Self Assessment - Statutory notifiable incidents, dangerous occurrences, improvement requirements and prohibition notices: Element 6(iii) and (iv) Questions 41 & 42			
More than one occurrence of major incident in the last five years	One occurrence of a major incident in the last five years	Occurrences relate to minor incident(s) only	No occurrences in the last five years

Element 6 Continued**(v) HSE Performance Records**

43. Have you maintained records of your incidents and HSE performance for the last 5 years? Please submit.

44. How is health performance recorded?

45. How is environmental performance recorded?

46. How often is HSE performance reviewed? By whom?

Element 6 Continued

47. Please provide your HSE statistics in the appropriate spaces below:

ITEM	2007	2006	2005	2004	2003
Exposure Hours					
Number of Fatalities					
Permanent Total Disabilities (PTD)					
Lost Work Day Cases (LWC)					
Lost Time Injuries (LTI)					
Lost Time Injury Frequency (LTIF)					
Restricted Work Day Cases (RWC)					
Medical Treatment Cases (MTC)					
Total Reportable Cases (TRC)					
Total Reportable Case Frequency (TRCF)					
Total Reportable Occupational Illnesses (TROI)					
Total Reportable Occupational Illness Frequency (TROIF)					
Total Number of Environmental Occurrences					

Additional Comments:

Self Assessment - HSE Performance records: Element 6(v) Question 47 (Health)

Level A - (0 Points)	Level B - (20 Points)	Level C - (30 Points)	Level D - (40 Points)
Contractor supplied insufficient information to establish frequency (rate or rate increases)	Frequency (rate) is not improving	Shows only minor frequency (rate) improvement	Frequency (rate) steadily improving by more than 25% Per year



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 12 of 15

Self Assessment - HSE Performance records: Element 6(v) Question 47 (Safety)			
Level A - (0 Points)	Level B - (20 Points)	Level C - (30 Points)	Level D - (40 Points)
Contractor supplied insufficient information to establish frequency (rate or rate increases)	Frequency (rate) is not improving	Shows only minor frequency (rate) improvement	Frequency (rate) steadily improving by more than 25% Per year

Self Assessment - HSE Performance records: Element 6(v) Question 47 (Environmental)			
Level A - (0 Points)	Level B - (20 Points)	Level C - (30 Points)	Level D - (40 Points)
Contractor supplied insufficient information needed to determine improvement	Environmental performance is not improving	Shows only minor environmental performance improvement	Environmental performance is steadily improving by more than 25% Per year

Element 6 Continued			
(vi) Incident Investigation and Reporting			
48. Who conducts incident investigations?			

49. How are the findings following an investigation, or a relevant incident occurring elsewhere, communicated to your employees?			

50. Are Near Miss safety learnings reported?			

Additional Comments:			

Self Assessment - Incident Investigation and reporting: Element 6(vi) Questions 48 - 50			
Level A - (0 Points)	Level B - (20 Points)	Level C - (30 Points)	Level D - (40 Points)
Findings not generally communicated	Findings communicated to key personnel only via limited company internal memo or similar media	Findings communicated to all employees via specific company notice	As in C but with the addition of details of implication for improving HSE performance

Elements 7 & 8: Auditing and Review			
(i) Auditing			
51. Do you have a written policy on HSE auditing?			

52. How does this policy specify the standards for auditing (including unsafe act auditing) and the qualifications for auditors?			



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 13 of 15

53. Do your company HSE plans include schedules for auditing and what range of auditing is covered?

54. How is the effectiveness of auditing verified and how does management report and follow up audits?

Additional Comments:

Self Assessment - Auditing: Element 7(i) Questions 51 - 54			
Level A - (0 Points)	Level B - (10 Points)	Level C - (20 Points)	Level D - (30 Points)
Audit process is cursory only - HSE documents are not explicit about auditing	Company HSE documents include reference to auditing but there are no specific details about scheduling and coverage	Company HSE documents include details of how auditing is to be implemented with schedules / coverage for the key areas	As in C but additionally specifies management's role in audit and follow-up on action items



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 14 of 15

Definitions for Question 47:

Exposure hours - The total number of hours of employment including paid overtime and training but excluding leave, sickness and unpaid overtime hours. Exposure hours should be calculated separately for company and contractor personnel. Time off duty, even if this time is spent on company premises, is not included in the calculation of exposure hours, but incidents during this are included in statistics if they are the result of failure or absence of management controls. In many company sites the number of exposure hours can be calculated from computer controlled access or time keeping records. In the absence of more accurate methods exposure hours can also be calculated from a head count and nominal working hours per person.

Fatality - A death resulting from a work related injury or occupational illness, regardless of the time intervening between the incident causing the injury or exposure causing illness and the death.

Permanent Total Disability (PTD) - Any work related injury that permanently incapacitates an employee and results in termination of employment.

Lost Workday Case (LWC) - Any work related injury that renders the injured person temporarily unable to perform their normal work or restricted work on any day after the day on which the injury occurred. Any day includes rest day, scheduled holiday, public holiday or subsequent day after ceasing employment. Note for U.S. Based Companies: This definition is different from the OSHA definition, which considers restricted work as a lost workday case.

Lost Time Injuries (LTI) - The sum of injuries resulting in fatalities, permanent total disabilities and lost workday cases, but excluding restricted work cases and medical treatment cases.

Lost Time Injury Frequency (LTIF) - The number of lost time injuries per million exposure hours.

Restricted Workday Case (RWC) - Any work related injury, which renders the injured person temporarily unable to perform all, but still some, of their normal work on any day after the day on which the injury occurred.

Medical Treatment Cases (MTC) - Any work related injury that involves neither lost workdays or restricted workdays, but which requires treatment by a physician or other medical specialist. Medical treatment does not include first aid even if a physician or registered professional personnel provide this.

Total Reportable Cases (TRC) - The sum of injuries resulting in fatalities, permanent total disabilities, lost workday cases, restricted workday cases and medical treatment cases.

Total Reportable Case Frequency (TRCF) - The number of total reportable cases (see definitions above) per million exposure hours. This frequency is determined by the following formula:

$$\frac{\text{Number of Reportable Cases} \times 1,000,000 \text{ hours}^*}{\text{Number of Total Exposure Hours}}$$

(* OSHA formula uses 200,000 hours)

Total Reportable Occupational Illnesses (TROI) - The sum of all identified occupational illnesses. Cases involving no lost or restricted workdays and no medical treatment are included.

Total Reportable Occupational Illness Frequency (TROIF) - The number of occupational illnesses per million exposure hours.



HSE Contractor Qualifications

DMS 0008-8014 R01
Date 2010-01-01
Page 15 of 15

HSE MS Point Totals

Element	Total Possible Points	Actual Points Scored						
1. Leadership and Commitment	30							
2. Policy and Strategic Objectives	30							
3. Organization, Responsibilities, Resources, Standards & Documentation	180							
4. Hazards and Effects Management	180							
5. Planning and Procedures	90							
6. Implementation and Performance Monitoring	230							
7. & 8. Auditing and Review	60							
9. Additional Features	30							
Total Points	830							
HSE MS Maturity Level Score								
Maturity Scoring Indicators		<table> <tr> <th>Level B</th><th>Level C</th><th>Level D</th></tr> <tr> <td>201 - 400</td><td>401- 600</td><td>601-830</td></tr> </table>	Level B	Level C	Level D	201 - 400	401- 600	601-830
Level B	Level C	Level D						
201 - 400	401- 600	601-830						
Stoplight Designation		<table> <tr> <td colspan="2">YELLOW</td><td>GREEN</td></tr> </table>	YELLOW		GREEN			
YELLOW		GREEN						

T09 0008-8014 Ver 01 - Approved - Exported from DMS: 2010-03-09 by ASUER



Code of Safe Practices

DMS 0008-7923
R04
Date: 2010-10-01
Page 1 of 11

ALL EMPLOYEES shall follow this CODE OF SAFE PRACTICES, render every possible aid to safe operations, and report all unsafe conditions or practices to the proper site management.

After you have read the listed practice and feel certain that you understand it, proceed to the next. If you DO NOT understand the practice, list the topic and practice number on the acknowledgement page, and discuss it/them with your supervisor.

1. General

- 1.1 Supervisors shall require employees to observe and adhere to every safe practice, regulation and policy as is necessary for the safe conduct of the work, and shall take action as necessary to ascertain a safe work environment.
- 1.2 A personnel record (which contains personal and emergency contact information) for each site employee shall be established and kept current. Any changes should be reported to your supervisor by the end of the business day of that given change.
- 1.3 NFPA class zero dress code: 100% cotton long sleeved shirts, 100% cotton trousers (no shorts) without holes, and suitable climate and weather-appropriate wear to combat heat or cold stress. Clothing made from polyester, nylon and acetate is prohibited. All personnel working in areas where electrical hazards are present shall use protective equipment that is designed and constructed for the specific part of the body to be protected and for the work to be performed. Where installed personnel must adhere to the arc flash labels posted. If the Arc Flash Hazard Analysis (AFHA) is not complete and no labels are posted personnel are required to utilize the Vestas Arc Flash PPE Matrix or NFPA 70E Table 130.7(C)(9).
- 1.4 All employees who drive to access or perform their work assignments must adhere to the VAME Vehicle Use Policy and Procedure (VAME-POL-1-08-00), maintain a current and valid license to drive, as well as proof of insurance. Any change in license or insurance coverage status must be reported to a direct supervisor by the end of the business day of the given change.
- 1.5 IMMEDIATELY REPORT ALL INCIDENTS. All injuries, illnesses and/or chemical exposures, including vehicle incidents, environmental/spills or near miss events, must be reported to your immediate supervisor as soon as possible so that the reporting and investigation process can begin and corrective measures can be taken to prevent recurrence. Refer to the HSE homepage for further assistance. Post-incident substance screening may be required.
- 1.6 REPORT ALL UNSAFE CONDITIONS OR HAZARDS. All personnel must report any hazardous or unsafe conditions, anonymously if they prefer, to the immediate or site supervisor or to the Safety Department (VAME-Safety@vestas.com).
- 1.7 All employees shall be given frequent incident/hazard prevention instruction and reminders. Daily and weekly morning safety meetings for ALL site employees and subcontractors will be held on a regular basis. Attendance is mandatory.
- 1.8 Anyone known to be under the influence of intoxicating substances shall not be allowed on site while in that condition. Intoxication (or the use of intoxicating substances while on the job) is grounds for disciplinary action up to and including termination.
- 1.9 No person shall knowingly be permitted to work while his/her ability or alertness is so impaired by fatigue, illness, or other causes that it unnecessarily exposes him/her or others to injury.

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VAME HSE Manual

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**Code of Safe Practices**

DMS 0008-7923

R04

Date: 2010-10-01

Page 2 of 11

- 1.10 *Violence/Harassment Free Workplace: No threatening or aggressive behavior toward other site personnel or visitors will be tolerated. Horseplay, fighting, scuffling, throwing of objects and/or other unsafe acts that could potentially injure or adversely affect the safety of others are prohibited.*
- 1.11 Work requirements may require field employees to climb vertically in excess of 250' and access restricted or confined work areas. Failure to do so or have the ability to do so may result in termination.
- 1.12 Only competent employees may access or operate machines or equipment and must be properly trained. Employers must provide training, or verify applicable current and valid records of training, before access to machinery or equipment is permitted. Employees shall not handle or tamper with any electrical equipment, machinery, or air or water lines in any manner not within the scope of their duties, unless they have received training and/or appropriate instruction from a competent person.
- 1.13 Prior to use or operation, all equipment shall be inspected to ensure safe operation, and appropriate documentation must be completed and filed.
- 1.14 Prior to working with tools or equipment, a Job Safety Analysis (JSA) or Pre-Task Plan (PTP) shall be well planned, documented and supervised to ensure quality and eliminate risk and / or prevent injury.
- 1.15 When lifting or moving heavy objects, always seek assistance from competent employees and utilize appropriate lifting tools where applicable. If the appropriate tools aren't readily available, the job must be stopped.
- 1.16 All employees, contractors and visitors should be aware of hazards (electrical, mechanical and hydraulic), guards and protective devices, their proper use and adjustments, and shall promptly report deficiencies to their supervisors or managers.
- 1.17 When there is the risk of injury from entanglement while working with or near machinery, combustibles, or toxic contaminants, all employees in these areas will tie back or otherwise confine their hair to eliminate the hazard. Employees must remove all metal jewelry prior to work in a turbine.
- 1.18 Employees shall be mindful of work positions in potentially hazardous work environments – nacelles, hubs, towers, roofs, E-Stops, locks, anchors, etc. – and review and be familiar with the turbine specific safety instructions prior to turbine access.
- 1.19 Never work aloft if you are afraid or nervous to do so, are subject to fainting or dizziness, or if you are ill.
- 1.20 Only one person at a time on any one ladder when climbing a tower or in a turbine.
- 1.21 Cover floor or platform openings with adequate barriers or covers.
- 1.22 Nothing may be thrown or dropped from a turbine, tower, ladder, scaffold, shelf or other elevated platform.
- 1.23 Any damage to scaffolds, false work, or other supporting structures must be reported promptly to a supervisor or manager and repaired prior to use.
- 1.24 No burning, welding, or other sources of ignition shall be applied to any enclosed tank or vessel, with or without openings, until it has been determined by the proper authority that no possibility of explosion exists.



Code of Safe Practices

DMS 0008-7923
R04
Date: 2010-10-01
Page 3 of 11

- 1.25 Prior to handling an injurious, caustic, toxic, or unfamiliar substance, review the special instructions provided for that substance (MSDS) and follow the precautions. After handling, wash hands thoroughly.
- 1.26 Prior to use, review the MSDS (Material Safety Data Sheet) for routinely used and newly introduced substances. Review updates when issued.
- 1.27 NEVER use compressed air or other gases for blowing off or cleaning clothing or body parts.
- 1.28 Warning signs and tags are for the protection of you and your co-workers.
- 1.29 Never remove a warning sign, danger tag, lock out or tag out device from any apparatus, valve, switch, etc. unless you are the owner of that tag.
- 1.30 Be alert to conditions and work processes in surrounding areas so that you can foresee and avoid danger. Be aware of other employees and equipment. Always have an escape route.
- 1.31 When working around heavy equipment, be sure that the operator can always see you.
- 1.32 Work under a suspended load is strictly forbidden.
- 1.33 In the event of a natural disaster, follow your emergency response plan.
- 1.34 Facilities are to be free of rodents, insects, vermin or vector. Continuing and effective extermination or elimination programs shall be instituted where their presence is detected. The presence of wildlife at this site may pose potential hazards. Do not feed or otherwise encourage their presence. Do not attempt to capture or move them.

2. Housekeeping

- 2.1 All employees are expected to practice good housekeeping. A job is not complete until cleanup is done.
- 2.2 Keeping tools, materials and equipment safely stored and in their proper places will prevent damage and help you and others find them when needed.
- 2.3 To prevent fire or accident hazards, arrange for periodic removal of scrap materials and/or rubbish left to accumulate in your work area. Rags, packing materials, sawdust and other trash should be collected and placed in appropriately marked receptacles.
- 2.4 Wipe up spills immediately. Notify your supervisor or a manager if you notice unusual leaks or drips. Be sure to contain and dispose of absorbent materials appropriately.
- 2.5 Sharp objects (scrap metal, glass, bottles, cans, etc.) shall be placed in appropriate containers.
- 2.6 Nails or screws protruding from lumber or boards should be removed or bent into the wood to prevent punctures or tears.
- 2.7 Do not place debris or other obstacles in roadways, walkways, aisles, or otherwise obstruct travel routes.
- 2.8 Help keep common areas (change rooms, sanitary facilities, drinking fountains, etc.) clean. They are provided for your health and convenience.

**Code of Safe Practices**

DMS 0008-7923
R04
Date: 2010-10-01
Page 4 of 11

3. Vehicles

- 3.1 All vehicles in use shall be checked at the beginning of the shift to assure that the following parts, equipment, and accessories are in safe operating condition and free of apparent damage which could cause failure while in use: service brakes, including trailer brake connections; parking system (hand or foot brake); emergency stopping system (brakes); tires; horn; steering mechanism; coupling devices; seat belts; operating controls (including lights, reflectors, windshield wipers, defrosters); and safety devices (including fire extinguishers). All defects shall be corrected before the vehicle is placed in service.
- 3.2 The driver is responsible for the safety of all passengers and for the stability of all materials in and on the vehicle.
- 3.3 All vehicle occupants shall use the safety belts provided.
- 3.4 Ask an observer to guide you when backing up or driving in congested or precarious areas, or when visibility is limited for any reason.
- 3.5 Whenever a vehicle is parked, the parking brake shall be set. As an additional precaution, vehicles parked on severe inclines shall have the parking brake set AND the wheels chocked.
- 3.6 Whenever possible, park so that the vehicle windshield is facing directly into the wind. Secure the doors when entering or leaving the vehicle to prevent wind damage to the vehicle and/or personal injury.
- 3.7 Park a safe and clear distance from other vehicles, turbines, transformers, or other structures. Do not park behind another vehicle or in such a way as to block any vehicle from moving. Park so that you have a clear escape route.
- 3.8 All passengers must be seated while the vehicle is in motion. No person shall ride outside of the vehicle, for instance in the truck bed.
- 3.9 As a general rule, the speed limit on all graded dirt site roads is 15 mph. Slower speeds are advised where visibility is restricted or impaired.
- 3.10 Vehicles should not have less than ¼ tank of fuel at any time.
- 3.11 Windshields should be kept clean to prevent glare or reduced visibility.
- 3.12 Off road parking or driving is prohibited.
- 3.13 Vehicles needing repair should be reported and attended to as soon as possible.
- 3.14 Oil and other fluid levels should be checked daily and added as needed. Belts, hoses, tires, etc. should be routinely inspected and replaced as necessary.
- 3.15 Each service vehicle should be equipped with a fire extinguisher and a first aid kit with incident reporting forms, and inspected/replenished as needed.
- 3.16 On remote sites, service vehicles should also be equipped with a shovel, at least a gallon of water, and a quart of oil.

4. Hand Tools

- 4.1 Every tool is designed for a specific purpose. Do not deliberately misuse any tool. For example:
 - Do not use screwdrivers as chisels or punches.
 - Do not use files to pry or punch.

**Code of Safe Practices**DMS 0008-7923
R04
Date: 2010-10-01
Page 5 of 11

- 4.2 Keep tools in proper working condition. Inspect before use; keep properly oiled, dressed, and adjusted.
- 4.3 Carry tools in their proper sheath, belt bag, or box – points down!
- 4.4 Hammer heads shall be properly secured to the shaft; hammer faces kept dressed and free of chips or unusual wear.
- 4.5 Hold cold chisels so as to protect the knuckles if the hammer misses the head. When available, use tongs or similar holding devices when using chisels.
- 4.6 Chisels shall be kept properly dressed, the cutting edge sharpened to the correct angle. Regular grinding will prevent the head of cold chisels from mushrooming.
- 4.7 Never hit hardened steel with another hardened steel implement, such as hitting a hatchet with a hammer.
- 4.8 Handle extensions or "cheaters", or similar alterations should not be used on wrenches unless they are designed for it.
- 4.9 Do not use pipe wrenches (i.e. Stilson wrenches) as a substitute for other wrenches.
- 4.10 Keep saw blades sharp. Sharpen or replace dull blades as necessary.
- 4.11 Keep drill bits sharp. Sharpen or replace bits as necessary.
- 4.12 Use eye and ear protection.

5. Tools

- 5.1 Know the proper use and function of any tool you use BEFORE you use it.
- 5.2 All electric power tools must be grounded or "double insulated".
- 5.3 Inspect power tools prior to use for defects, loose parts, altered safety devices, worn or otherwise defective power supplies or cords. Do not use altered or defective tools. Report defects to your supervisor or manager immediately.
- 5.4 Unplug or disengage tools from power supply after use. Store in a safe place and protect from weather, dirt, and moisture. Tools are to be stored no higher than shoulder height.
- 5.5 The power supply must be properly attached to the tool and the source. Do not lift a power tool by its cord or power supply.
- 5.6 In certain situations, it may be necessary to hang a portable tool. Be certain to secure it from a stable object and using a rope, tool lanyard.
- 5.7 Do not allow tools or their respective power supplies or cords to be run over by vehicles, or where others might trip over them.
- 5.8 Check immediate surroundings before operating any tool. Warn those nearby.
- 5.9 Be prepared for a rotating tool to jam; be sure to have secure footing and good balance, and keep loose clothing and hair tied back.
- 5.10 All portable and stationary grinders should be equipped with guards. Do not alter, disengage, or otherwise remove any protective device.
- 5.11 Shut off and bleed down air hose before disconnecting air tools.
- 5.12 Always use ear and eye protection when using power tools.

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T09 0008-7923 Ver 04 - Approved - Exported from DMS: 2010-10-05 by ASUER



Code of Safe Practices

DMS 0008-7923

R04

Date: 2010-10-01

Page 6 of 11

6. Electrical

- 6.1 Electrical work is to be done by trained, authorized personnel ONLY, and ALWAYS with a partner present. Electricity must be respected and all safety precautions followed.
- 6.2 Prior to work on any circuit, it must be de-energized and secured by means of a personal lock-out device or tag. The de-energized condition MUST be verified by the use of appropriate test equipment and approved methods.
- 6.3 Do not remove protective shields until the shielded components are de-energized.
- 6.4 No circuits are to be energized without first informing a supervisor or manager, and then appropriate site personnel.
- 6.5 Prior to working on any circuit, that circuit must be grounded. The ground wire in any circuitry is for your protection – do not bypass or damage it.
- 6.6 All electrically operated equipment, portable or stationary, must be grounded.
- 6.7 Use gloves, hot stick, and other grounding equipment as needed.
- 6.8 Power supplies or extension cords must be inspected for wear or damage prior to use. Do not use if cords are defective or worn.
- 6.9 Keep cords out of water or mud, and above or out of foot or vehicle traffic.
- 6.10 Temporary lighting circuits are not to be used to power electrical tools.
- 6.11 Disconnect switches are labeled to show the equipment or service they supply. Check carefully before operating.

7. Personal Protective Equipment

- 7.1 PPE - APPROVED (ANSI and/or CSA) Personal Protective Equipment, specifically selected for use by HSE Department, shall be worn in all work areas and/or situations where there is inherent risk of receiving injury or harm. Failure to do so will result in disciplinary action up to and including immediate dismissal. Substitutions for personal protective equipment are forbidden unless approved by the HSE Department.
 - a. **Eye and Face** - HSE approved safety glasses with side shields, face shields, goggles, etc. must be worn at all times when in contact with or when being exposed to flying particles, hazardous substances (splash or spray), or light rays. Goggles (secured with a strap) must be worn when working with, on or near any pressurized (hydraulic) system or to tool such as bolt torquing or tensioning, (Hytorc or ITH), compressed gases, blade hydraulics (rams), etc. Safety glasses are required upon exiting your vehicle on-site while climbing and in the nacelle, hub or base. Eye protection must be worn at all times except in administrative areas.
 - b. **Hearing** - Hearing protection must be worn when exposed to high noise levels (prolonged exposure to 85db or greater) as outlined in the day's JSA.
 - c. **Head** - An HSE authorized hard hat is required upon exiting your vehicle on-site. Only an HSE approved hard hat is acceptable when working around suspended loads (no work is permitted directly under a suspended load), or where there is possibility of lateral impact to the head. A Vestas approved hard hat is required for climbing and in the nacelle, hub or base. Head protection must be worn at all times, except in administrative areas or while riding in vehicles.



Code of Safe Practices

DMS 0008-7923

R04

Date: 2010-10-01

Page 7 of 11

- d. **Respiratory** - Hazard specific respiratory protection (masks, respirators, self-contained breathing apparatus, personal air purifying respirators, etc.) must be worn where hazards identified in the USA are determined to be harmful to health exist. Training, fit testing and medical clearance MUST be acquired for respirator use. Respirators - assigned to individuals - shall be kept clean and replacement cartridges shall be made available by site management.
- e. **Hands and Arms** - Task suitable gloves and arm protection shall be worn at all times when hands will be exposed to rough or uneven surfaces, when gloves will improve grip, or when the possibility of handling hazardous materials or substances (concrete, epoxies, cleaning agents, greases, etc.) exists.
- f. **Feet** - Safety footwear must be worn at all times by field and service personnel except in administrative areas. Safety footwear must adhere to the ANSI Z41 standard or be CSA Z195 approved. Overshoes shall be worn in snow, mud, or rain conditions to access work areas and protect safety footwear from excessive soiling, premature wear, and/or wetness. If work tasks require ladder climbing, warehouse, service and field personnel shall wear approved steel or composite toed safety footwear in good condition that provides ankle and instep support.
- g. **Fall Protection** - HSE approved personal fall arrest equipment must be worn, including: fall arrest gear, cable grab or slider, head protection, gloves, safety glasses and safety footwear. Only HSE approved ladder safety cable systems or certified anchorages (usually painted yellow) will be used for fall protection, fall restraint or positioning. Failure to practice 100% tie-off fall protection (fall arrest, restraint or positioning) when exposed to falls is basis for disciplinary action up to and including immediate termination. Two personnel certified in fall protection and rescue is required during climb test for new employees, visitors and subcontractors prior to tower access.
- An HSE approved personal fall arrest system (PFAS) - safety harness, lanyards, and cable ascent/descent device will be worn at all times by any employee working at heights (in turbines, on scaffolds, on suspended work platforms, etc.). They should be kept in good condition and stored in a clean, dry place when not in use. They should be visually inspected daily prior to use and formally inspected (documented) quarterly, and replaced when worn or damaged. Personal fall arrest shall only be attached to certified anchors.
- h. **Controlled Descent** - Every Vestas Americas employee and contractor entering a turbine must have successfully completed HSE approved controlled descent training. An approved, inspected controlled descent device must be present any time an employee is working in the nacelle.
- For test climbing a turbine, there must be two competent people with approved Vestas Americas controlled descent training present at all times.
- i. **Clothing** - It is each individual's responsibility to evaluate the hazard present and don the appropriate PPE required to protect them from that hazard.
- All personnel working in areas where electrical hazards are present shall use protective equipment that is designed and constructed for the specific part of the body to be protected and for the work to be performed.
- Where installed personnel must adhere to the arc flash labels posted. If the Arc Flash Hazard Analysis (AFHA) is not complete and no labels are posted personnel are required to utilize the Vestas Arc Flash PPE Matrix or NFPA 70E table 130.7(C)(9).



Code of Safe Practices

DMS 0008-7923
R04
Date: 2010-10-01
Page 8 of 11

Cotton shirts and long cotton pants without holes shall be worn. Clothing made of acetate, rayon, nylon or polyester is prohibited. Weather protective clothing is issued to employees who work in areas with extreme climatic conditions.

8. Cranes (Mobile)

- 8.1 A copy of current certifications for all on-site operators shall be on hand at all times.
- 8.2 The crane operator is in charge and must be respected.
- 8.3 Place outriggers on solid footing.
- 8.4 Keep boom, lines, and loads a minimum of fifty (50) feet away from electric power lines. To perform work closer than this minimum, power lines must be de-energized. If crane work must be done within fifty feet, a regional manager must be contacted for approval.
- 8.5 Never swing loads over any personnel or equipment. Persons should stay out from under all suspended loads.
- 8.6 Use standardized OSHA approved signals and from ONLY ONE signal person at any one time. If more than one signal is given, immediately cease operation.
- 8.7 Use a spotter when moving the load, backing up, or whenever additional visibility is warranted.
- 8.8 Riding on a suspended load is strictly forbidden at any time. Failure to follow this policy is grounds for disciplinary action up to and including termination

9. Rigging

- 9.1 Before use, inspect the equipment for wear or defects. Do not use if the integrity of the equipment is questionable.
- 9.2 Know the load limitations of the rigging equipment you will use.
- 9.3 Keep hands and fingers clear of the load, chokers, and slings.
- 9.4 All hooks must have safety latches.
- 9.5 The use of carabineers for rigging purposes is strictly forbidden.
- 9.6 Use only one eye per hook. Use a shackle if two or more eyes are involved.
- 9.7 Use softeners for sharp edges, and for a secure grip.
- 9.8 Tag lines are mandatory for all loads being lifted.

10. Heavy Equipment: Forklifts

- 10.1 Heavy equipment must be inspected and documented prior to each use.
- 10.2 Do not attempt to operate any heavy equipment until you have been properly trained and certified, and then only if authorized by a supervisor or manager.
- 10.3 No riders will be allowed on any piece of heavy equipment. Forklifts must not be allowed to elevate employees unless cages or platforms with guardrails and fall arrest gear are used.
- 10.4 Check to see that direction of travel (including overhead) is clear before and while moving.
- 10.5 On banks, steep slopes, and deep fill edges, be aware of the possibility and danger of overturning.



Code of Safe Practices

DMS 0008-7923
R04
Date: 2010-10-01
Page 9 of 11

- 10.6 Keep the forks spread as far apart as possible. Always check the stability of the load before moving it.
- 10.7 Back down grades when carrying a load.
- 10.8 Lower forks as far as safely possible before moving.
- 10.9 Lower forks completely before leaving the equipment.

11. Excavations (Trenches)

- 11.1 Place high visibility barricades and warning signs around excavation site. Use warning lights, flagmen, or watchman if necessary.
- 11.2 Do not permit vehicles or equipment to get too close to the edge.
- 11.3 Place excavation spoils as far away as is safely possible to avoid load strain on walls. Remove rocks that may fall in.
- 11.4 Stay within the shore area and be aware of changing ground conditions.
- 11.5 Slope or shore all sides to prevent cave-ins. Inspect carefully after rain and/or flooding, or other hazard-increasing occurrence. Sides must be shored if vertically deeper than five (5) feet.
- 11.6 Ensure that there is no one below when excavating near tops of cuts, banks, and cliffs.
- 11.7 Use hand railed bridges as walkways across excavations.
- 11.8 Before backfilling any excavation, be positive that there is no one in it.

12. Non-Electrical Hot Work

A non-Electrical Hot Work Permit is required when performing any operations involving open flames produces heat and/or sparks such as welding, cutting, brazing, grinding or use of propane heaters.

13. Portable Ladders

- 13.1 Prior to use, inspect ladders for split side rails, missing or defective rungs, or other signs of weakness. Defective ladders should be removed from service immediately. Wooden ladders are not allowed on Vestas' sites.
- 13.2 Appropriately select a ladder which will extend three (3) feet beyond the top landing.
- 13.3 Never attempt to splice two (2) ladders together.
- 13.4 When climbing or descending, face the ladder and always use both hands.
- 13.5 Do not ascend higher than the third rung from the top of a straight or extension ladder, or above the second step from the top of a stepladder.
- 13.6 A metal spreader or locking device, to hold the front and back sections open, shall be on all stepladders.
- 13.7 The base of the ladder should be set out at least one-fourth of the ladder height measured from the bottom to the point of bearing.
- 13.8 Tie off all straight ladders as a precaution.

Vestas American Wind Technology 1881 SW Naito Parkway, Suite 100, Portland, Oregon USA www.vestas.com

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VAME HSE Manual

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**Code of Safe Practices**DMS 0008-7923
R04
Date: 2010-10-01
Page 10 of 11

- 13.9 Ladders must not be placed in blind spots without proper barricades, or warning signs, or watch person in place.
- 13.10 When using a portable ladder, three (3) points of contact while climbing and a support person at the bottom of the ladder.
- 13.11 Ladders shall be maintained free of oil, grease and other slipping hazards.

14. Personnel Platforms

- 14.1 Personnel platforms shall be inspected before use according to manufacturers' specifications, and shall be designed to support the task working load capacity.
- 14.2 Use only HSE approved platforms.
- 14.3 Planking shall be designated for use on scaffolds only and marked accordingly.
- 14.4 Prior to use, personnel must be trained and certified on personnel platforms.
- 14.5 Platforms must have handrails and toe boards. Handrails and toe boards must be secured.

15. Compressed Air/Gas Tanks/Accumulators

- 15.1 Compressed Air/Gas tanks must be separated between empty and full containers in an upright and secured position out of the way of moving traffic. Accumulators are the only exception to the storage restrictions. (Accumulators are to be stored laid on their side.)
- 15.2 Remove regulators, close valves tight and cap after use and during storage.
- 15.3 When tanks must be moved, keep upright; use proper blocks and ties to secure to the transporter.
- 15.4 Tanks must have regulators removed and caps installed before moving.
- 15.5 If a crane is used, a cradle or suitable platform shall be used to secure the tank.

16. Fire Protection and Prevention

- 16.1 Prior to beginning any work, assess your work environment, noting the possibility of a fire occurring, the proximity of firefighting equipment, and a safe escape route in the event of a fire.
- 16.2 All firefighting equipment shall be conspicuously located, shall be easily accessible, and will be inspected and maintained on a regularly scheduled basis.
- 16.3 Internal combustion engine powered equipment (e.g.: portable generators) shall be so situated that the exhausts are clear of any combustible materials.
- 16.4 Smoking is prohibited on site except in designated areas. Smoking is forbidden in any turbine.
- 16.5 Gasoline or other flammable liquids should never be used for cleaning. Use approved cleaning agents only.
- 16.6 Oily rags should be stored in an appropriate receptacle labeled for them. Do not discard oily rags in regular rubbish bins.
- 16.7 A fire extinguisher rated 2A or better shall be provided for each 3,000 square feet of protected building area or major fraction thereof.



Code of Safe Practices

DMS 0008-7923
R04
Date: 2010-10-01
Page 11 of 11

- 16.8 Travel distance from any point of the building to the nearest fire extinguisher shall not exceed 50 feet.
- 16.9 Fire extinguishers are to be inspected monthly by a competent person and annually by a certified inspector.
- 16.10 Fire extinguishers are to be unobstructed and readily accessible.
- 16.11 A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than 5 gallons of flammable or combustible liquids or 5 pounds of flammable gas are being used on the site (this requirement does not apply to motor vehicle fuel tanks). Fire extinguishers are also required to be up tower when working.

17. Conclusion

Staying safe is your **FIRST** responsibility at Vestas Americas. Stay aware and prevent hazards from occurring. Be alert to sensibly react to potential danger.

By being safety conscious at all times, you'll enhance this workplace for yourself, your co-workers, and the environment.

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Acknowledgement of Intent to Follow Code of Safe Practices

DMS 0008-7939 R1
Date: 2010-01-01
Page 1 of 1

Vestas Americas expects all employees, subcontractors and visitors on site to know and follow the safety rules described in our Code of Safe Practices (DMS 0008-7923).

Additionally, other safety rules (e.g.: site or job specific) may be brought to your attention, and should be followed as well.

There are many other safety regulations, such as standards issued by the Occupational Safety and Health officials that may also apply.

This Code of Safe Practices is comprised of basic rules. It is your responsibility to abide by them and ensure a safe work place for yourself and others.

Directions:

As you review the Code of Safe Practices, list each Topic Letter /Item Number that you do not understand or wish to have further clarified on each line.

Example:

A 17

Once you have read through the Code, present this list to the trainer.

As they have been explained to you and you understand them, write your initials in the adjoining box:

I, (Print Full Name) _____, have received and reviewed a complete copy of the Vestas Americas Code of Safe Practices.

I understand and agree to abide by these and any supplementary safety rules.

Employee Signature _____

Date (MM/DD/YR) _____

Name/Address of Employer if other than Vestas Americas:

Name: _____

Address: _____ City: _____ ST: _____

Phone: _____ FAX: _____

The Code of Safe Practices is readily available for review in the OHSMS Manual posted on SharePoint.

Attach this SIGNED Acknowledgement sheet to the Orientation Form and file with the Site Safety Records.

Copy to: Employee File

Copy to: Employer (if other than Vestas Americas)

Copy to: Signee Above

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RESTRICTED TRADE SECRET & CONFIDENTIAL
Site Safety Rules
Field & Service Personnel

DMS 0008-7944 R03
Date 2010-July-09
Page 1 of 2

Site Name: _____ Site Location: _____

Name (Print Full Name): _____ Date: _____

Site Supervisor: _____ Site Safety Rep _____

PLEASE NOTE: The following rules are mandatory. Any person choosing to disregard them may be escorted from this site and prohibited from further work on this site. A map of the site, Emergency Response Plan and Emergency Contact Lists are available to all site personnel.

- 1) If you arrived for work alive, with ten fingers and ten toes, excellent vision and hearing, and free from illness, we expect you to return home the same way, and so does your family.
- 2) All employees who drive on this site must maintain a current and valid license to drive and proof of insurance. Any change in license or insurance coverage status must be reported to your supervisor within 5 workdays.
- 3) A personnel record (which contains personal and emergency contact information) for each site employee shall be established and kept current. Any changes should be reported to your supervisor within 5 workdays.
- 4) Dress code: Long sleeved shirt (no short-sleeved, sleeveless or "tank tops") and full length trousers (no shorts) without holes, and suitable climate or weather appropriate wear. Clothing made from polyester, nylon, acetate or rayon, unless it has been treated to be flame retardant, is prohibited.
- 5) Safety footwear (CSA or ANSI approved) must be worn at all times except in administrative areas or while riding in vehicles. Safety footwear will support the ankles, have steel or composite toes and have a supportive shank and good tread. "Cowboy" style boots, unless they meet all above requirements for safety footwear, are not allowed.
- 6) Hard hats or Petzl helmets must be worn at all times except in administrative areas or while riding in a vehicle. Only a hard hat is acceptable when working around suspended loads (no work is permitted directly under a suspended load), or where there is a possibility of lateral impact to the head.
- 7) Failure to practice 100% tie-off fall protection when working at heights of 6 feet or more is basis for disciplinary action up to and including immediate termination.
- 8) Eye protection must be worn at all times except in administrative areas. Safety goggles (secured with a strap) must be worn when working on or near any pressurized (hydraulic) system or with or near any pressurized (hydraulic) tool such as the Hytorc or ITH.
- 9) All personal jewelry (i.e. metal rings, earrings, watches, necklaces, etc.) should be removed before working on or around energized electrical or mechanical equipment or tools.
- 10) All climbing and lifting equipment must be inspected daily before use and defective equipment removed from service immediately.
- 11) Speed limits (unless otherwise posted): County Roads (paved) 55 mph – Township Roads 35 mph – Site Roads (graded) 15 mph are strictly enforced. Reduce speed to 5 mph on graded roads when workers are present or where visibility or road conditions are impaired in any way.
- 12) All site vehicles will provide Right-Of-Way to farm vehicles (harvesting machines) and school busses – DO NOT PASS.
- 13) Vehicles shall stay on established roads. Do not park any vehicle where the exhaust system could ignite dry vegetation.
- 14) Vehicles must be parked with the hood facing into the wind to prevent vehicle door damage or personal injury.
- 15) Seat belts must be worn by all occupants when traveling in vehicles.
- 16) Riding in or on any motorized vehicle or piece of equipment anywhere other than where designed for a passenger is prohibited.



RESTRICTED TRADE SECRET & CONFIDENTIAL
Site Safety Rules
Field & Service Personnel

DMS 0008-7944 R03
Date 2010-July-09
Page 2 of 2

- 17) To ensure a safe and healthful workplace for all employees, site guests and visitors, use of tobacco products is prohibited inside any administrative building, in company vehicles, or in WTGs. Smoking is restricted to designated outdoor areas only. Spent tobacco materials (cigarette butts, matches, chew) must be securely contained (disposable ashtray or other enclosed containment device) until it can be properly disposed of.
- 18) No controlled substances, alcohol, weapons or firearms are permitted on this site. Report any physician prescribed medicines to your site supervisor before you begin work.
- 19) All site employees shall be aware of hunting season and the potential presence of hunters – bows and rifles.
- 20) Violence/Harassment Free Workplace: No threatening or aggressive behavior toward other site personnel will be tolerated. No roughhousing, horseplay or bravado will be tolerated.
- 21) Do not intentionally kill or harass wildlife. Do not feed, lure, trap or capture any creature. Exception: vermin control.
- 22) Dead or injured birds of prey must be reported to the Site Supervisor immediately. It may be necessary to secure the scene by putting up a security boundary until proper authorities (i.e. Dept. of Fish & Game) are able to respond.
- 23) All equipment operators must be properly trained. Employers must provide training, or verify current and valid records of training, before access to machinery or equipment is assigned.
- 24) Wind turbine tower doors must NEVER be locked from the inside or otherwise prevent emergency entry.
- 25) High visibility barriers and signage shall be posted around all open excavations and trenches and must be respected.
- 26) Where necessary, high visibility traffic control measures will be used when working on or adjacent to the site roads especially when using cranes and excavators, digging trenches or blocking part of the road for any reason.
- 27) Fire prevention measures must be followed, including completing a HOT WORK PERMIT prior to performing any hot work such as cutting and welding, or use of open flame torches.
- 28) All waste (plastic, cardboard, empty containers, etc.) shall be properly and securely contained until it can be disposed of. Bags of trash must be tied shut - dumpsters shall be kept covered - pallets stacked neatly – oil, solvent, or paint soaked rags must be stored in closed metal containers.
- 29) All incidents, including vehicle incidents or near miss events, must be reported to your supervisor as soon as possible so that the reporting and investigation process can begin and so that corrective measures can be taken to prevent recurrence. Post-incident drug tests may be required.
- 30) All personnel must attend regularly scheduled site safety meeting with their employers.
- 31) All personnel must report any hazardous or unsafe conditions, anonymously if they prefer, to the site supervisor or to the Safety Department (VAME-safety@vestas.com).
- 32) Know your Site Safety Representative and the correct procedures to follow in emergency situations.
- 33) Work requirements of this project may require employees to climb vertically in excess of 250' and access restricted or confined work areas. Failure to do so or have the ability to do so may result in termination.

REPORT ALL SAFETY HAZARDS OR INCIDENTS TO YOUR SUPERVISOR IMMEDIATELY

I acknowledge that I have read and fully understand these rules and agree to comply with them at all times while on this site. I also understand that disregard for these rules can result in disciplinary action up to and including immediate termination. If I do not understand these or any other rules, policies or procedures, it is my responsibility to ask.

Signature

Date

CONFIDENTIAL TRADE SECRET & CONFIDENTIAL

New Employee Safety Training (Orientation) **Vestas**

PLEASE PRINT:

NAME: _____	
COMPLETE HOME ADDRESS: _____	HOME PHONE: _____
OTHER #: _____	
EMERGENCY CONTACT NAME & PHONE #: _____	

SITE/LOCATION: _____	
PROJECT/SITE MANAGER: _____	SITE SAFETY OFFICER: _____
<input type="checkbox"/> NEW HIRE	<input type="checkbox"/> REHIRE <input type="checkbox"/> TRANSFER - From: _____
DATE OF THIS SITE ASSIGNMENT: _____	<input type="checkbox"/> OTHER: _____
	ORIGINAL HIRE: _____

CHECK EACH ITEM AS IT IS EXPLAINED TO YOU:

I. PROJECT/SITE LOGISTICS			
<input type="checkbox"/> Schedule: Shift, Start/End & Break Times	<input type="checkbox"/> Site Access/Speed	<input type="checkbox"/> Phones &/or Radios	<input type="checkbox"/> Work Uniform/Footwear
<input type="checkbox"/> Sanitary Facilities - Restrooms & Water	<input type="checkbox"/> Site Access/Parking	<input type="checkbox"/> Harassment Policy	<input type="checkbox"/> Emergency Response Supplies
<input type="checkbox"/> Eating Areas - Food Storage/Recycling	<input type="checkbox"/> Site Access/Security	<input type="checkbox"/> Smoking/Chew Policy	<input type="checkbox"/> Weather

II. INITIAL TRAINING ON THE HEALTH AND SAFETY PROGRAM, INCLUDING:	
<input type="checkbox"/>	Reporting safety concerns and the right to ask any question, or report any safety hazard, either directly OR ANONYMOUSLY without any fear of reprisal.
<input type="checkbox"/>	Disciplinary procedures that may be used to ensure compliance with safe work practices.
<input type="checkbox"/>	The location of departmental safety bulletins, safety postings and federal, state and local required postings.
<input type="checkbox"/>	Access to the Vestas Safety Committee. Site Representative: _____
<input type="checkbox"/>	Pre-Task Planning Forms (Pre-Lift, Tail Gate, JSAs, etc.)
<input type="checkbox"/>	Reporting Occupational Incidents - Injuries, Illnesses, Vehicle or Equipment Damage and Near Miss events.
<input type="checkbox"/>	Emergency Contact Phone Numbers. To summon Emergency Medical Response, Call: _____
<input type="checkbox"/>	Safety Meetings - Site Schedule and Policy: _____

III. HAZARD COMMUNICATION TRAINING	
<input type="checkbox"/> The potential occupational hazards in the work area and safe work practices and/or personal protective equipment required for my job title/assigned tasks:	
<input type="radio"/> Bloodborne Pathogens - Universal Precautions	<input type="radio"/> Cranes & Forklifts - Trained Operators
<input type="radio"/> Electrical Hazards - LOTO, GFCI & Grounding	<input type="radio"/> Confined Space - Permits & Attendants
<input type="radio"/> Fall From Heights - Fall Protection Training/PPE	<input type="radio"/> Excavations - Barricades & Bridges
<input type="radio"/> Vehicle Accident - Defensive Driver Training	<input type="radio"/> Slip/Trip/Fall - Housekeeping
<input type="radio"/>	<input type="radio"/> Office Area Hazards - Ergonomics
<input type="radio"/>	<input type="radio"/> Poisoning/Spills - Haz Com Training
<input type="radio"/>	<input type="radio"/> Site Hazards - Semi Annual Audits
<input type="radio"/>	<input type="radio"/> Weather - Emergency Response Plans
<input type="checkbox"/> The hazards of any chemicals to which I may be exposed, and my right to review the information contained on the Material Safety Data Sheets.	
<input type="checkbox"/> The labeling and hazard warnings for containers of hazardous chemicals.	
<input type="checkbox"/> The location and availability of Material Safety Data Sheets (MSDSs), the site Chemical Inventory List & the VWS Black List.	
<input type="checkbox"/> The Person Responsible for maintaining the Material Safety Data Sheets (MSDSs) and the site Chemical Inventory List.	
<input type="checkbox"/> The Business Processes and Work Instructions regarding EMS (Environmental Management Systems) compliance have been reviewed. (These Business Processes are available on SharePoint.)	
<input type="checkbox"/> The procedure for updating the site chemical inventory list.	

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IV. OTHER SAFETY TRAINING / INFO:

☐ Site Safety Rules ☐ Fall Arrest System Inspection ☐ Climb Test ☐ Emergency Response Plan
☐ Code of Safe Practices ☐ PPE Issue & Training ☐ Safety Bulletin Review ☐ Controlled Substance Policy

V. EMPLOYEE CERTIFICATION/DATE (COPY and ATTACH proof of Current/Valid Training and Certification below - Record Expiration Dates)

☐ Fork Lift Operator: _____ ☐ First Aid/CPR: _____
☐ Crane Operator: _____ ☐ Other: _____

I fully understand the above items and agree to comply with safe work practices in my work area at all times.
 I understand that my actions can affect the health and safety of others.
 I understand that disciplinary action, up to and including termination, may result from failure to follow procedure.
 I also understand that every individual is ultimately responsible for his/her own safety.

EMPLOYEE
SIGNATURE: _____

DATE: _____

I, (Instructor's Name/Job Title) _____

hereby certify that this employee has been trained on the items checked on this form.

INSTRUCTOR
SIGNATURE: _____

DATE: _____

**When complete, file report in Site Safety Records, or forward to the Vestas Americas HSE Dept.*

CA Sites - This completed form provides evidence of initial training required under the SB-198 - Injury & Illness Prevention Program.

Attach copy of Driver's License, Proof of Insurance, and any available certifications:



Hot Work Plan

Contents

1. Purpose.....	2
2. Scope	2
3. General Safety Requirements.....	2
4. Personal Protection.....	3
5. Ventilation.....	3
6. Fire Prevention	3
7. Compressed Air.....	4
8. Eye Injuries	4
9. Ear Injuries/Hearing Damage.....	4
10. Burns.....	4
11. Falls.....	5
12. Fumes.....	5
13. Asphyxiation.....	5
14. X-Rays	5
15. Welding	5
15.1 General Precautions.....	5
15.2 Arc Radiation.....	6
15.3 Fire Prevention	6
15.4 Explosions.....	6
16. Burning and Cutting.....	7
16.1 General Precautions.....	7
16.2 Eye Protection	7
16.3 Emergency Situations.....	8
17. Compressed Gas Cylinders	8
17.1 General Requirements.....	8
17.2 Cylinder Storage Requirements.....	9
18. Hose and Hose Connections:	9
19. Torch Safety.....	10
20. Grinding	11
21. Non-Electrical Hot Work Permit.....	11
21.1 Non-Electrical Hot Work Permit Issuer.....	12
22. History of this Document.....	13

Hot Work Plan

1. Purpose

The purpose of this program is to ensure that Vestas – American Wind Technology, Inc employees are properly protected when performing **HOT WORK** which includes, but is not limited to welding, burning, and grinding operations and have a clear understanding of the hazards involved and the proper way to control them. Control of welding, burning, and grinding hazards include avoiding eye injury, respiratory protection, ventilation of the work area, protective clothing and having safe equipment use. To establish the written requirements for the safe performance of **NON-ELECTRICAL HOT WORK** operations. These requirements also help to ensure compliance with Federal OSHA General Industry Standard 29 CFR 1910 Subpart Q and Construction Standard 29 CFR 1926 Subpart J.

2. Scope

This program applies to all Vestas – American Wind Technology, Inc. employees, Suppliers/ Contractors who may be performing non-electrical **HOT WORK**, welding, burning, and grinding operations at a Vestas job site. Improper welding, burning, and grinding can be dangerous, but can be performed safely by following simple common sense procedures. The following information includes a list of potential hazards associated with welding, burning, grinding and includes guidelines by which hazards of these operations can be controlled and/or eliminated.

NOTE: This information is intended for use on many different types of jobs and as such, very general in nature. Specific job rules-standards may dictate requirements that are more stringent.

3. General Safety Requirements

- Disposable butane pocket lighters are not allowed where any **HOT WORK** is being performed.
- Assure welding leads and burning hoses are clear of high traffic areas and are neatly arranged to prevent tripping hazards.
- Inspect all leads, ground clamps, welding machines, hoses, gauges, torches, and cylinders each day prior to use.
- Treat welding cylinders with care. Keep cylinders secured in an upright position. Replace the protective caps when cylinders are not in use.
- Be sure all fittings, couplings, and connections are wrench tight.
- Use flashback arrestors on manifold outlets.
- Return all empty cylinders to a designated cylinder rack.
- Provide adequate ventilation.
- Appropriate fire extinguishing equipment must be readily available (25-50 ft).
- Know where the nearest fire extinguisher is located. Use a fire watch when necessary.
- All combustible material below welding and burning operations must be removed to a safely location and/or covered with protective approved fire retardant material.
- Protect others from your welding, cutting or grinding operation. Use approved welding curtains or flash screen in and around active work areas.

- A **HOT WORK PERMIT** is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but not limited to Brazing, Cutting, Grinding, Soldering, Thawing Pipe, Torch applied roofing and welding.

4. Personal Protection

- Long-sleeve leather gloves, high top shoes, hard hats, a leather jacket, and other protective clothing and equipment as required shall always be used. Ear protection shall always be used for protection from hot sparks and molten metal. Clothing shall be selected with consideration given to the flammability of the material.
- Use the proper disposable particle and vapor type respirators, (Refer to Vestas-AWT Respiratory Protection Program), and additional ventilation, as required, when welding, cutting, gouging or burning on coated materials, such as galvanized or heavily painted materials.
- Do not perform **HOT WORK** in such a manner that sparks, slag, hot metal or the other cut parts will fall on you, other personnel, or on flammable materials.
- Do not smoke when connecting or disconnecting regulators, torches or hoses.
- Do not start burning or heating operations until you have checked to see that sparks or heat will not cause damage or personal injury.
- Anytime an operator is heating, brazing or burning on material where the other side cannot be seen and/or the possibility of fire exists, a fire watch shall be used.
- Wear higher top boots to protect ankles.
- Wear the proper welding hood with shaded lens. Prior to welding, check hood for leaks.
- Wear long pants without cuffs.
- Don't wear excessively greasy or dirty clothing
- Button your collars and sleeves to prevent sparks from entering.

5. Ventilation

When performing **HOT WORK** in a confined or enclosed space, provide mechanical ventilation as needed.

When performing **HOT WORK** on galvanized metal, be especially careful to provide adequate ventilation, smoke eaters, and/or appropriate respirator. (Refer to Vestas-AWT Respiratory Protection Program).

6. Fire Prevention

- Check perimeter areas, floor and walls openings.
- Use fire watch when needed.
- Use fire retardant blankets where needed.
- Remove flammable and combustible materials.
- Recheck areas at quitting time.

7. Compressed Air

- Inspect all hoses and couplings before using them.
- Never crimp, couple or uncouple pressurized hoses. Shut off the valve and slowly bleed the hose.
- Use hose that is designated for compressed air only
- Use guards whenever they can be used. If you must remove a guard for any reason, get authorization from your supervisor, and replace it as soon as possible.

8. Eye Injuries

Grinding or welding sparks or slag can cause eye injuries. Full-face shields and safety glasses should be worn at all times. (Specific job requirements may be more stringent.)

Use care in removing safety glasses, face shield and welding hoods so as not to cause residual dust particles to enter eyes.

9. Ear Injuries/Hearing Damage

Welding, cutting or grinding sparks can enter the ear and burn and possibly permanently damage the ear.

High noise levels from carbon-arc cutting or the plasma arc cutting processes can affect your hearing.

Always wear protective ear equipment as appropriate. Protection, which covers the entire ear, is recommended.

10. Burns

- Exposed skin is an invitation to burns. Be sure to wear long-sleeved shirts that are not open at the chest and always fasten the top button of your shirt or jacket. Use leather jackets when appropriate;
- Avoid polyester clothing since it melts easily and can result in serious burns;
- Falling slag, spatter or molten filler metal can cause burns to ankles and feet. Wear high top safety shoes. Avoid trousers with cuffs;
- Never carry flammable items such as matches and lighters in your pocket while involved with "hot work". Disposable butane pocket lighters are not allowed where any "hot work" is carried on;
- Always wear the appropriate type of leather gloves for welding or cutting process being employed;
- Be extremely cautious around weld joints that require high preheat temperatures, and the use of added heat sources for maintenance of the required preheat temperature; and
- Before leaving a work area, always mark "hot work" pieces (with soapstone, crayon, etc.) to alert others of this hazard.

11. Falls

Welding cables, hoses and lines lying about the floor or deck are tripping hazards. Always keep cables, hoses, and lines off the decks and floors and on hangers and out of main walkways.

Electrode stubs lying on floors or decks are slipping hazards. Always use the appropriate stub end containers.

While welding, the welding hood prevents an individual from relating to the immediate surroundings. Be aware of the hazards around your area, and use safety belts when appropriate, or as required by job rules.

12. Fumes

Avoid breathing fumes and gases. Always try to keep your head out of the direct path of the fume plume.

Use the proper vapor type respirators, and additional ventilation, as required, when welding, cutting, gouging or burning on coated materials, such as galvanized or heavily painted materials.

Make sure adequate ventilation is available, and used, when welding or cutting in confined areas.

13. Asphyxiation

Inert gases, such as argon, helium, nitrogen and carbon dioxide displace air in a confined space as they build up. The flame of an oxy-fuel torch can form poisonous carbon monoxide.

Always be sure there is adequate ventilation when using these inert gases, especially in confined areas.

Never enter a confined space without proper authorization.

14. X-Rays

X-Rays are commonly used for weld inspection. Excessive exposure to X-Rays can pose a hazard to your health. Never cross radiation barriers.

15. Welding

15.1 General Precautions

- Electrode holders shall be in good repair and rated for the maximum capacity of equipment used.
- All cables and connectors shall be in good repair, tightly attached, fully insulated, and rated for the maximum capacity of the work.
- Welding lead shall have a safe current capacity equal to or greater than the specified maximum output of the arc welding or cutting unit, which it services. When a single work lead services more than one unit, its safe current carrying capacity shall equal or exceed the total specified maximum output capacities of all the units, which it services.
- All electrical equipment (welding machines) and work shall be properly grounded. The welding lead is not a ground lead. It is used only to complete the electrical circuit. A separate

Hot Work Plan

connection may be required to ground the work piece. Do not mistake the work lead for a ground.

- Pipelines containing gases and/or flammable liquids, or conduits containing electrical circuits shall not be used as a ground.
- When electrode holders are to be left unattended, the electrode shall be removed and the holders so placed or protected that they cannot make electrical contact with personnel or conducting objects. Always put stub ends in appropriate containers.
- Do not weld while standing in water or if clothing and gloves are wet.
- Inspect equipment for loose connections or bare and/or damaged wires. Do not use faulty equipment.
- Turn off your welding machine at the end of your shift and/or when machine is not in use for an extended period.

15.2 Arc Radiation

Infrared or ultraviolet radiation from the arc can burn the eyes or skin. Intense light can cause an irritation in the eyes known as "welder flash", arc-eye" or flash burn. Always view the arc when protected with a shield using protective altered lenses of the appropriate shade. The following are recommended shade numbers:

- SMAW 10 to 14
- GTAW 10 to 12
- GMAW 10 to 12
- FCAW 11 to 14
- Carbon Arc -14

A slightly lighter or darker shade may be required depending on individual needs.

Avoid light, thin Clothing.

15.3 Fire Prevention

- Acetone and alcohol are commonly used for cleaning parts to be welded. Be sure to keep these containers and rags a safe distance from **HOT WORK**.
- Sparks and/or splatter from welding and/or arc gouging may ignite burnable items in the area. Assure areas are free of trash and debris.
- Burnable materials shall either be removed from the area where welding or arc gouging is to take place or materials are protected with approved flame retardant materials.
- Sparks and spatter from arc gouging travel considerable distances. Whenever possible, orientate the spark stream to minimize concern for fire and/or damage resulting from the spark stream. Use approved fire retardant shielding and/or fire watch as appropriate.
- When welding on decks, walls, or overhead, assure that necessary precautions are taken to prevent fire and/or heat damage to adjacent areas.
- Assure that full knowledge of the locations and proper use of fire extinguishing equipment.

15.4 Explosions



Hot Work Plan

- Do not weld and/or use arc-gouging equipment in the presence of propane, acetylene or any other flammable materials.
- Do not perform any **HOT WORK** in or on any tank, vessel, or container unless it is properly vented.
- Do not perform **HOT WORK** in or on any vessel, tank, and/or container that carry or have carried flammable materials, liquids, gases until the container has been properly cleaned and tested for safe **HOT WORK** by a qualified person.
- Appropriate ventilation shall be used during **HOT WORK**.
- Never strike an arc on any cylinder.

16. Burning and Cutting

Improper use of any oxy-fuel equipment can be extremely dangerous and has the potential to cause personal injury and/or property damage. Oxy-fuel equipment is used extensively in our operations to aid us in performing our work. These operations can be performed safely by following simple precautions.

16.1 General Precautions

- Do not use leaking and/or defective equipment.
- In the event of a cylinder valve leak, immediately stop all **HOT WORK** and notify your supervisor.
- Manifold valves that are not operating properly shall be immediately reported to your supervisor.
- In the event torches and/or regulators leak, report to your supervisor. Repair shall be made by authorized personnel only.
- Hose leaks and/or damaged shall be reported immediately.
- Compressed gas cylinders must always be stood upright and properly secured. Protective valve caps must be installed when cylinders are not in use.
- Cylinder and manifold valves must be closed when not in use. Do not over tighten. If cylinder valve becomes frozen, thaw it at room temperature or use warm water no greater than 125 degree F. Never use open flame or electric heating device of any kind.
- Keep Oil and grease away from oxygen regulators, hoses and fittings. Do not store wrenches, dies, cutters or other grease-covered tools in the same compartment with oxygen gauges and/or equipment.
- Wear only approved burning goggles.

16.2 Eye Protection

When burning/cutting operations are taking place, personnel shall be protected with the proper burning goggles having the shaded lens required for the type of work being performed.

- Light cutting, up to 1" No. 3 or No. 4
- Medium cutting 1" to 6" No. 4 or No. 5
- Heavy cutting, over 6" No. 5 or No. 6

16.3 Emergency Situations

In case of a flashback and/or ruptured hose, the operator's first duty is to stop the flow of gases. This can be done either directly behind the damaged or burning area (if it can be done safely) or at the cylinder or manifold.

If it can be done safely, the torch and hose should be moved out of confined areas to an open space (preferably outside).

Any equipment that has been involved in a flashback, fire or explosion shall be completely inspected prior to being put back into service.

17. Compressed Gas Cylinders

Serious accidents may result from the misuse, abuse or mishandling of compressed gas cylinders. The two most commonly used compressed gas cylinders found on sites are oxygen and acetylene.

Employees whose work involves compressed gas cylinders are to be trained in the safe methods of handling, storage, and use.

17.1 General Requirements

- Cylinders shall be kept away from radiators and all other sources of heat. Do not place cylinders in any location where they could become heated to 125 degree F.
- Empty cylinders shall have closed valves.
- Storage of empty cylinders shall be separate from fully charged cylinders.
- Valve protection caps, where cylinder is designed to accept a cap, shall always be in place, hand tight except when cylinders are in use or connected for use.
- Protection from solar radiant heat shall be provided where cylinders are directly exposed to sunlight.
- Compressed gas cylinders shall be secured in an upright position at all times except for short periods while cylinders are actually being hoisted or carried.
- A fire extinguisher shall be no closer than 25 feet, but not farther than 50 feet from areas where fuel gases are stored.
- If a storage area is dock height, appropriate guard railing and safe access shall be provided.
- A Suitable cylinder truck, cradle, or suitable platform shall be used when moving cylinder. Slings, hooks, or electric magnets shall not be used. Valve protection caps must always be in place during transport.
- Cylinders must be kept far enough away from actual welding or cutting operations so sparks, hot slag or flame will not reach them.
- Cylinders, when not in use, shall be turned off and the hoses and regulators shall be bled off.
- Acetylene in cylinders is dissolved in liquid acetone. Never lay an acetylene cylinder on its side because the acetone liquid can get into the regulator and/or hoses, and cause flashbacks. Occasionally, liquid acetone may be drawn out of the cylinder along with the acetylene gas when a very large gas flow is required. Evidence of this will be erratic "spitting" of the flame. Installing a manifold to use two or more cylinders simultaneously will eliminate this problem.

- Acetylene cylinder valves should be opened only $\frac{3}{4}$ to $1\frac{1}{2}$ turns. This will permit adequate flow of gas and restrict flow rates, which could draw acetone out of the cylinders.
- All propane and oxygen cylinders should be opened all the way and seated at the full-open position to reduce the possibility of valve stem leakage.
- Cylinders handled by cranes shall be secured in a specially made rack or material skip box. Never use magnets or slings to handle compressed gas cylinders.
- Always refer to oxygen as **OXYGEN** and not as air. Oxygen shall not be used for ventilation purposes, comfort cooling, blowing dust from clothing, or for cleaning work area.
- Never set acetylene outlet pressure above 15 PSI as acetylene gas becomes unstable at pressure greater than 15 PSI and may explode.
- Isolate cylinders to prevent contact with welding or other electric lines. Do not let cylinders become part of an electrical circuit.

17.2 Cylinder Storage Requirements

- Oxygen cylinders in storage shall be separated from fuel or gas cylinders or combustible materials (especially oil or grease) a minimum of 20 feet or by a noncombustible barrier at least 5 feet high having a fire-resistant rating of at least one-half (1/2) hour.
- Inside of facilities and/or enclosures, cylinders shall be stored in a well-ventilated, well-protected dry location at least 20 feet from highly combustible materials such as oil or shavings. Cylinders shall be stored in designated locations away from stairs, hallways, etc. Designated spaces shall be located where cylinders are protected from being tipped over and/or damaged by passing or falling objects or subject to tampering by unauthorized persons. Cylinders shall not be stored in unventilated enclosures such as lockers and cupboards.
- Inside a building, cylinders except those in actual use or attached for use, shall be limited to a total gas capacity of 2,000 cubic feet to 300 pounds of liquefied petroleum gas.
- Warning signs shall be conspicuously placed and shall read, 'Danger- No Smoking, Matches or Open Flames' or other equivalent wording.
- Acetylene cylinders shall be stored valve end up.
- A chain or other secure fastening shall be used to keep cylinders from being knocked over while in storage.
- Empty cylinders shall have their valves closed. Valve protection caps shall always be in place, except when cylinders are in use or connected for use.

18. Hose and Hose Connections:

- Oxygen hoses must be of a different color from hoses used for fuel gas lines (oxygen-green: fuel-red).
- Connections must be cared for so that the brass fitting will not leak and will be able to withstand twice the maximum delivery pressure of the regulators provided.
- Standard oxygen equipment has right hand threads; fuel gas equipment has left handed threads. Never force connections.
- Inspect hoses for leaks and other defects such as nicks, cuts, and abrasions.

Hot Work Plan

- Never use tape to correct a deficiency; get another piece of hose.
- Never stand in front of the gauges on the regulator when opening the discharge valve of the tank. Open discharge valve slowly...Sudden pressure may destroy the gauge and blow out glass and parts.
- Keep caps and plugs on and in gas outlets to prevent foreign debris and liquid from entering the system and/or damaging the threads.
- Frequently (at least daily) inspect all connections seats and fittings. If warped, scarred, or damaged in any way, do not use the part. Repair or replace.
- Always remove open-ended oxy-fuel hoses from confined spaces immediately or cap the ends of the hose with approved hose caps.
- Before installing regulators on cylinders or manifolds, open the cylinder or manifold valve slightly (standing to one side) and quickly close the valve. This activity known as "blowing out" the valve seat area, cleans the seating area of dust, dirt, and debris.

19. Torch Safety

- Do not handle torch roughly or use it as a hammer, hook or pry bar.
- To minimize leaks, fuel gas control valves on hand torches have soft nylon seats. These valves should be closed only to the point where the flow of gas is stopped. Forcing them beyond this point will cause damage and impair the proper operation of the equipment.
- Use only tips that have clear passages and clean seats free from bruises or scars. A bruised or dented tip makes a leaky seat and scores the torch head.
- Do not attempt to improve the performance of a tip by drilling, peening, bending or otherwise modifying the original design.
- Torch tip cleaning should only be done with special tip cleaners
- Always perform safety check on all torch equipment. Blow out the torch and hoses before you attempt to operate the equipment.
- When lighting a torch, light it quickly, keeping the torch flame away from you, others, gas equipment and combustibles. Remember not to let too large a volume of gas escape before igniting the torch.
- When lighting a torch, open the fuel gas valve on the torch before opening the oxygen valve.
- Light torches with striker lighters only. Always use approved spark lighter for igniting oxy-fuel torches. Never use matches or cigarette lighter. Do not try to re-ignite a torch on **HOT WORK** as accumulated gas may cause an explosion.
- Do not let the tip of the torch contact work when using an acetylene torch. Flashback or backfires will almost certainly occur. If the flame pops or goes out for any reason, turn off torch valves immediately and investigate the problem.
- Prior to lighting your torch, but after all hose and torch connections have been safely made, the regulators shall be opened for a short interval of time to permit complete filling of the hoses. The supply valve will then be closed and the pressure on the gauges watched for 60 seconds. Any drop in pressure indicates a leak. (Torch valves shall be closed). Do not turn on the

Hot Work Plan

supply valve again until the leak has been repaired. This activity is known as your "Torch Safety Check".

- After your "Torch Safety Check" has been performed, go back to the torch, and if it is not already in an open space (preferably outside), carry it to an open area where it will be safe to blow it out. Never blow out a torch or hose in a confined or enclosed space.
- Keep tips clean.
- Never attempt to relight a torch from **HOT WORK**, especially in a confined space.

20. Grinding

- Always use proper protective equipment.
- Use guards whenever they can be used. If you must remove a guard for any reason, get authorization from you supervisor, and replace it as soon as possible.
- Use flash screens or other nonflammable barrier to confine flying particles whenever anyone else could become exposed to flying particles.
- Inspect grinding wheels before using them. Use only wheels that are rated (RPM) for the machine you are using.
- On bench grinders, keep tongue guards no more than 1/4 inch and work rests no more than 1/8 inch away from the grinding wheel.
- Do not use or allow any oily or greasy substance to come in contact with compressed gas cylinders, manifold valves, regulators, hoses or torches. Oil or grease in the presence of oxygen may ignite with explosive violence.
- Keep the torch flame, sparks, molten metal, and hot slag away from hoses, regulators, and cylinders.

21. Non-Electrical Hot Work Permit

Before initiating Hot Work, always consider alternatives to avoid performing hot work. Is there a safer way?

The term **NON-ELECTRICAL HOT WORK** is defined as any operation that involves open flames or produces heat and/or sparks. Some examples of **NON-ELECTRICAL HOT WORK** are welding, cutting, brazing, soldering, grinding, and the use of propane heaters. All **NON-ELECTRICAL HOT WORK** must be permitted by use of a **NON-ELECTRICAL HOT WORK PERMIT**.

The **NON-ELECTRICAL HOT WORK PERMIT** must be prominently displayed in the work area where the **NON-ELECTRICAL HOT WORK** is being performed.

Requests for a **NON-ELECTRICAL HOT WORK PERMIT** should be made to Vestas Americas site management prior to starting any **NON-ELECTRICAL HOT WORK**. This individual will be different across the Americas.

Material Safety Data Sheets (MSDS) for the welding rods, gases, fluxes and other chemical materials used in performing **NON-ELECTRICAL HOT WORK** must have received approval from Vestas site management prior to items being brought on site.



Hot Work Plan

NON-ELECTRICAL HOT WORK will not be initiated and/or will be terminated if the requirements in this document are not followed.

21.1 Non-Electrical Hot Work Permit Issuer:

Complete and issue the **NON-ELECTRICAL HOT WORK PERMIT** only after the following requirements are met:

- Visually inspect the area where **NON-ELECTRICAL HOT WORK** is to be performed.
- Determine what special precautions are required, if any;
- Inform the personnel performing the **NON-ELECTRICAL HOT WORK** of any hazards or other special instructions necessary to do the work safely;
- Ensure the **NON-ELECTRICAL HOT WORK** equipment is in good repair;
- Ensure the required PPE is available, in good condition, the employee is properly trained and will be worn during the **NON-ELECTRICAL HOT WORK**;
- Ensure fire watch has been designated, if needed;
- Ensure fire extinguishers or any other safety equipment or supplies are available for use;
- Inspect the area periodically while the **NON-ELECTRICAL HOT WORK** is being performed.

Follow the **NON-ELECTRICAL HOT WORK PERMIT** process and security procedures.

Note: The Vestas Americas Environmental, Health & Safety Department has determined that all sites must meet or exceed the Vestas-Americas Hot Work Permit form requirement



22. History of this Document

Rev. no.:	Date:	Description of changes
00	2003-11-20	First edition – Reformatted and renumbered 21-May-07
01	2010-01-01	Content and template updates

TRADE SECRET & CONFIDENTIAL

Hot Work Permit

Vestas

SITE NAME: _____ LOCATION: _____

DATE: _____ TIME: _____

WORK TO BE PERFORMED IN / AT (Describe location / nearest structure):

PERMIT ISSUED TO (NAME): _____

PERMIT EXPIRATION (TIME): _____ DATE: _____

DESCRIBE WORK TO BE DONE:
_____**REQUIRED EQUIPMENT:** (Inspected and operational; "X" all that apply to this permit)

<input type="checkbox"/> Glasses/Goggles	<input type="checkbox"/> Body Protection	<input type="checkbox"/> Hard Hat	<input type="checkbox"/> Ventilation	<input type="checkbox"/> Air Monitoring (Tunnels only)
<input type="checkbox"/> Shield/Helmet	<input type="checkbox"/> Gloves	<input type="checkbox"/> Respirator	<input type="checkbox"/> Communication	<input type="checkbox"/> Special Protection/Tools

FIRE WATCH REQUIRED? Fire Watch: a person stationed at the hot work area who monitors the area for the beginnings of any potential, unwanted fires. The Fire Watch may be assigned other duties while in the hot work area. A Fire Watch is required in the following situations: in a sprinklered building when the sprinkler system is impaired; when there are combustible materials within 35' of the hot work area; when large amounts of combustible materials are present, even if located 35'+ from the hot work area, but close enough to be ignited by a spark; any time there is a high risk that a fire could start.

The Fire Watch must have readily available, appropriate fire extinguishing equipment, and be trained in its use and limitations. They shall also be familiar with the procedures for sounding an alarm in the event of a fire. The Fire Watch will watch for fires in all exposed areas and try to extinguish them ONLY when obviously within the capacity of the equipment available - otherwise they will sound the alarm immediately.

☐ NO ☐ YES - IF YES, NAME(s): _____

PRECAUTIONS CHECKLIST - Complete prior to any hot work planned for an area not designed for hot work. "X" each box where the statement is true. If any statements are not true, then hot work shall not begin until that issue can be safely resolved.

- ☐ Fire suppression sprinklers, fire hoses, and/or fire extinguishers are available and operable - employees are trained to use them.
- ☐ Flammable and ignitable materials & debris are moved at least 35' from hot work area OR covered & protected with fire resistant material OR Fire Watch arranged.
- ☐ Smoke/fire detectors/alarms in immediate area of hot work have been temporarily disabled.
- ☐ Building/site occupants have been protected/isolated from hot work area.
- ☐ All cracks or openings in walls, floors, ceilings (including duct work) are covered or plugged.
- ☐ Welders have been protected from electrical hazards. Metal equipment and materials have been adequately grounded.
- ☐ Hot work equipment is operable and in good repair - CGCs have been leak tested - welding machines have been inspected.
- ☐ Drums, barrels and tanks have been cleaned and purged of flammables and toxics - all tanks feeds are closed, and tank is vented.
- ☐ Workers and Fire Watch have been trained in use of equipment and how to sound the alarm.

TIME STARTED: _____

WHEN WORK IS COMPLETED: At the completion of the hot work, inspect the work and surrounding areas for the possibility of smoldering or fire, ensure that all hot work equipment has been removed from the area and, if appropriate, re-activate the fire detection equipment. If appropriate, notify the building/facility manager or contact person that the work has been completed. Complete this section and close the permit by signing at the bottom.

- ☐ Inspected hot work area and all potentially affected surrounding areas for fire, fire damage, or potential for fire.
- ☐ Reactivated smoke/fire detectors/alarms that were disabled to perform the hot work.

I verify that the precautions on this permit have been taken to prevent fire and that the work has been authorized. The creation or discovery of any work induced hazards or other unforeseen, actual, apparent or potential hazards will be assessed, and additional precautions taken, if necessary.

Signature: _____ Date: _____

TIME COMPLETED: _____

SITE MANAGER APPROVAL:

Signature: _____ Date: _____

***HOT WORK:** Cutting, welding, brazing, torch soldering, high speed metal grinding, or use of an open flame. Hot work is not permitted: within 50' of explosives, stored cylinders, or stored fuel; unless authorized by a supervisor; in the presence of a potentially explosive atmosphere.

File completed forms in the Site Safety Records, Section 15.

TRADE SECRET & CONFIDENTIAL



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**Guest Agreement &
Release of Liability**DMS 0008-7954 R01
Date 2010-01-01
Page 1 of 1

I, (Print Full Name) _____

☐ Am a site guest of: _____ ☐ Am a site visitor.

In case of emergency, please call:

(Name) _____ Phone: (____) _____ - _____

In consideration of being permitted to use the facilities and equipment at this Vestas Americas site, I do hereby waive, release, and forever discharge Vestas and all of its employees and representatives from any and all responsibilities or liability for injuries or damages resulting from my participation or my use of equipment at the aforementioned facility. I do hereby release all of those mentioned and any others acting on their behalf from any responsibility or liability for any injury or damage to myself in any way arising out of or connected with my use of this facility.

Please initial here: _____

I understand and am aware of the presence of industrial equipment and that exposure to the equipment can be a potentially hazardous activity. I also understand that some activities may involve a risk of injury and even death and that I am voluntarily participating in these activities and utilizing equipment and machinery with the knowledge of the dangers involved. I hereby agree to expressly assume and accept any and all risks of injury or death.

Please initial here: _____

I do hereby further declare myself to be physically sound and suffering from no condition, impairment, disease, infirmity, or other illness that would impede or preclude my activities this facility.

Please initial here: _____

I acknowledge that I have either had a physician's approval for my activities or that I have decided to participate without the approval of a physician and do hereby assume all responsibility for my participation and activities and utilization of equipment and machinery in my activities.

Please initial here: _____

Signature _____

Date _____

PROJECT MANAGER / SITE SUPERVISOR USE ONLY

Visit/Tour was pre-arranged and approved

☐ By Phone ☐ Written Request (attach) ☐ Other: _____

Site Mgmt. Rep. Name: _____

Site Escort Name(s): _____

Number of Guest(s)/Visitor(s) _____ (Attach Guests/Visitors Site Safety Rules if available)

Visit Start Time: _____ End Time: _____ VISITOR PPE: ☐ Issued ☐ Returned

- ☐ Attach signed sheet to Guest Agreement and Release of Liability form - file in Site Safety Records
☐ Copy to employer if other than Vestas Americas.

Vestas American Wind Technology 1881 SW Naito Parkway, Suite 100, Portland, Oregon USA www.vestas.com

DMS 0008-7897 R5 09-July-2010

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VAME HSE Manual

T09 0008-7954 Ver 01 - Approved - Exported from DMS: 2010-03-09 by ASUER

TRADE SECRET & CONFIDENTIAL



Contents

1. Introduction	2
1.1 Purpose	2
1.2 Scope	2
1.3 Application	2
2. Responsibilities	2
2.1 Management	2
2.2 Site Management	2
2.3 HSE Department	3
2.4 Employees	3
3. Identifying and Reporting Hazards	3
3.1 Observations	3
3.2 Inspections	3
3.3 Reporting Hazards	4
4. Controlling Hazards and Exposure	4
4.1 Controlling Hazards	4
4.2 Controlling Exposure	4
4.3 Scheduling	4
5. Training Requirements	5
5.1 General Instruction	5
5.2 Job Safety Analysis Training	5
6. History of this Document	5



1. Introduction

1.1 Purpose

The purpose of the Hazard Identification and Control Plan is to provide direction in identifying and controlling hazards.

1.2 Scope

This plan details the programs and procedures used to identify and control hazards.

1.3 Application

This plan applies to employees, contractors, visitors and others performing work on Vestas Americas premises.

2. Responsibilities

2.1 Management

2.1.1 Executives, Project Managers and Regional Service Managers shall:

- a) ensure development and implementation of the plan
- b) provide site management with adequate resources and support to carry out their responsibilities
- c) require site management adherence to hazard identification and control procedures
- d) recognize site management and employees for performance improvement

2.2 Site Management

2.2.1 Site management shall:

- a) adhere to Hazard Identification and Control Plan procedures
- b) ensure a safe work instruction or a Job Safety Analysis (JSA - DMS# 0008-7897) is available and reviewed prior to performing a hazardous task
- c) carry out Hazard Identification and Control Plan responsibilities
- d) ensure required instruction and training has been provided to employees, contractors, visitors and others
- e) require employees, contractors, visitors and others to carry out their responsibility to identify and report hazards
- f) ensure employees and others are protected from hazards presenting imminent-danger and that the hazards are corrected as soon as possible
- g) respond promptly to hazard reports, safety concerns and suggestions
- h) ensure hazard reports are properly documented and submitted to the HSE Department
- i) ensure required preventive or corrective actions have been taken and monitor effectiveness
- j) ensure the duration of employee exposure to hazards does not extend beyond safe limits



2.3 HSE Department

2.3.1 The HSE Department shall:

- a) develop and monitor implementation of this plan
- b) provide efficient and effective hazard identification and control instruction and training
- c) conduct regular worksite inspections and program audits
- d) review hazard reports and evaluate preventive or corrective actions taken

2.4 Employees

2.4.1 Employees shall:

- a) adhere to plan requirements
- b) review safety precautions in work instructions prior to performing tasks
- c) report inadequate safe work instructions and/or JSAs to site management
- d) report any of the following as soon as possible to a supervisor:
 - 1. injuries or illnesses
 - 2. unsafe conditions and behaviors
 - 3. near miss (non-injury) incidents
 - 4. environmental incidents
- e) conduct safety inspections and programs audits as required by site management
- f) document completion of inspections and other program activities
- g) warn co-workers of unsafe conditions or behaviors
- h) refuse to perform hazardous tasks if:
 - 1. adequate protective equipment and other resources have not been provided, or
 - 2. adequate instruction and/or training on the task have not been provided

3. Identifying and Reporting Hazards

3.1 Observations

- 3.1.1 Site management shall frequently observe employees performing work tasks to reinforce safe work practices.
- 3.1.2 Site management shall frequently observe worksite conditions and take protective or corrective action when deficiencies are noted.
- 3.1.3 Employees shall continually observe behaviors and worksite conditions while performing work activities and take immediate corrective action if unsafe conditions or behaviors are observed. This includes alerting others of hazards.

3.2 Inspections

- 3.2.1 Site management shall conduct worksite inspections as often as the type of operation or character of the equipment requires and at least quarterly using the Site HSE Inspection Checklist (DMS# 0008-8003).
- 3.2.2 Defective equipment or unsafe conditions found during worksite inspections shall be removed from service, replaced, repaired, or remedied promptly.



RESTRICTED TRADE SECRET & CONFIDENTIAL

Hazard Identification & Control Plan

DMS 0008-7993 R05
Date: 2010-July-09
Page 4 of 5

3.2.3 Inspection reports shall be signed, dated and filed in the Site Safety Records.

3.3 Reporting Hazards

3.3.1 Employees shall report workplace hazards to their immediate supervisor or other person in charge as soon as possible.

3.3.2 Unsafe conditions that can not be remedied promptly shall be reported to the HSE Department using the Unsafe Condition or Hazard Report (DMS# 0008-8002).

4. Controlling Hazards and Exposure

4.1 Controlling Hazards

4.1.1 Site management shall take protective or corrective action to eliminate or reduce hazards to an acceptable level of risk according to the following priority:

- Elimination. Attempt to remove the hazard itself through design specifications and standards for tools, equipment, machinery, and facilities.
- Substitution. This control method eliminates/reduces hazards by substituting or replacing existing equipment and materials with less hazardous equipment and materials.
- Engineering controls. These include ventilation systems, machine guarding, noise abatement, or modification of existing tools, equipment, machinery, or facilities, etc.
- Warnings. These increase awareness of potential and existing hazards (e.g., lights, signage, barriers, and beepers, etc.)

4.2 Controlling Exposure

4.2.1 To reduce exposure to hazards, site management shall use administrative controls such as modified work schedules, procedures, or work practices (e.g., job rotation, safe work instructions, restricted access, or required use of PPE.)

4.2.2 Employees shall review and follow task-specific work instructions for all hazardous tasks.

4.2.3 A Job Safety Analysis (JSA) using the Job Safety Analysis form (DMS# 0008-7897) shall be completed and referenced for hazardous tasks when any of the following conditions exists:

- JSA does not exist for the hazardous task
- adequate task-specific work instruction is not available
- task-specific work instruction is available, but the procedures do not adequately identify HSE hazards and safety precautions

4.2.4 Site management shall review and approve each JSA for use as a temporary work instruction until an adequate approved task-specific work instruction is available.

4.2.5 Site management shall forward a copy of the JSA and draft work instruction for technical and HSE review.

4.2.6 For complex processes, site management may choose to conduct a Risk Assessment using the Risk Assessment Worksheet (DMS# 0008-8004).

4.3 Scheduling

4.3.1 Site management shall ensure work schedules do not extend the duration of employee exposure to hazards beyond safe limits.



5. Training Requirements

5.1 General Instruction

5.1.1 Employees will receive hazard identification and control instruction and training as follows:

- a) initially during basic HSE training at the Portland Training Center, or on-site during site-specific safety orientation
- b) periodic on-site and web-based training

5.2 Job Safety Analysis Training

5.2.1 Employees required to perform JSAs should complete the online course - Conducting a Job Safety Analysis.

6. History of this Document

Rev. no.:	Date:	Description of changes
02	2002-10-15	Unknown – revision history was not maintained in original safety <i>manual</i>
03	2007-05-30	Completely rewritten and formatted
04	2010-01-01	Template and content updates
05	2010-07-09	Added links and DMS numbers to HSE Manual document references. Changed references to JHA to JSA. Minor wording changes.



TRADE SECRET & CONFIDENTIAL

CONFIDENTIAL TRADE SECRET & CONFIDENTIAL
Unsafe Condition or Hazard Report **Vestas**

I. UNSAFE CONDITION OR HAZARD (Attach additional pages as needed)		
OBSERVED DATE(S): _____		TIME: _____
SITE NAME/LOCATION: _____		
DESCRIBE UNSAFE CONDITION OR HAZARD: <div style="border: 1px solid black; height: 50px; margin-top: 5px;"></div>		
RECOMMENDATIONS TO CORRECT THE UNSAFE CONDITION OR HAZARD: <div style="border: 1px solid black; height: 70px; margin-top: 5px;"></div>		
II. OBSERVED BY (PRESENT TO PROJECT/SITE MANAGER OR HEALTH AND SAFETY REPRESENTATIVE):		
NAME (Optional): _____		Date: _____
III. MANAGEMENT / H&S / SAFETY COMMITTEE INVESTIGATION		
DATE RECEIVED: _____	RECEIVED BY: _____	
SITE SUPERVISOR NAME _____	SIGNATURE _____	DATE _____
INVESTIGATOR(S) _____		
INVESTIGATION RESULTS: <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>		
IV. PROPOSED CORRECTIVE ACTION: <div style="border: 1px solid black; height: 60px; margin-top: 5px;"></div>		
CORRECTIVE ACTION COMPLETION DATE (if more than 30 days, refer to Safety Committee)		
V. AFFECTED:		
ARE OTHER SITES AFFECTED? IF YES, LIST NAMES OF SITES OR EQUIPMENT: <div style="border: 1px solid black; height: 70px; margin-top: 5px;"></div>		

*When complete, send to Vestas Americas, 1881 SW Naito Parkway, Portland, OR 97201, Attn: Safety Office
and / or present to Site Supervisor or Site Safety Rep.

Page _____ of _____

TRADE SECRET & CONFIDENTIAL

Vestas®**Risk Assessment**

(Use to assess complex processes)

Location:

--

Job/Task	Probability	Severity	Risk

Prepared By (Name / Title):

Date

Prepared By (Name / Title):

Date

Reviewed By (Name / Title):

Date

Reviewed By (Name / Title):

Date

- 1 Enter jobs to be assessed.
- 2 Rate the probability that, if exposed, an employee will be injured or become ill. Choose one of the drop-down ratings.
- 3 Rate the severity of the injury or illness if an accident occurs. Choose from one of the drop-down ratings.
- 4 Calculate the overall risk by multiplying each Probability Rating by each Severity Rating. Generally, the higher the Risk Score, the higher the priority for conducting a Job Hazard Analysis.
- 5 Enter the name(s) of the person(s) who prepared the Risk Assessment and the date it was performed.
- 6 Enter the name of the person reviewing the Risk Assessment. Usually, this will be a site manager or safety representative/coordinator.

How to increase row height when part of the text you entered does not show:

Click the cell that has hidden text.

Point the row from the left.

Slowly move the mouse down until the pointer changes to a little line with up and down arrows.

Hold down the right mouse button, then move the mouse down until all the text is visible.

How to add more rows:

Unprotect the sheet (Tools > Protection > Unprotect Sheet).

Select some rows. Be sure that the top row selected is a data entry row and the last row selected little row.

Right click and then click Copy (make sure the pointer is pointing at the selected rows).

Right Click and select Insert Copied Rows (make sure the pointer is pointing at the selected rows).

Protect the sheet (Tools > Protection > Protect Sheet). Do not enter a password; just click OK.

Choose One

- 1 - Very Unlikely
- 2 - Unlikely
- 3 - Likely
- 4 - Very Likely
- 5 - Extremely Likely

Choose One

- 1 - Minor Injury/Illness
- 2 - Injury/illness < 3 days lost
- 3 - Injury/illness > 3 days lost
- 4 - Major injury/illness, >30 days lost
- 5 - Almost certain death

Choose One

- 1 - Never
- 2 - Rarely (exposed less than once a month)
- 3 - Occasional (one or more exposures during a workweek)
- 4 - Frequent (one or more exposures during the workday)
- 5 - Continuous exposure throughout the workday

TRADE SECRET & CONFIDENTIAL



New Material Review**Vestas.**

SITE: _____ LOCATION: _____

DATE: _____ SITE SUPERVISOR: _____

PLEASE REVIEW THE ATTACHED. ONCE REVIEWED, PLEASE SIGN AND DATE NEXT TO YOUR NAME ON THE ROSTER BELOW. WHEN SIGNATURES OF ALL AFFECTED SITE EMPLOYEES ARE COLLECTED, THIS MSDS WILL BE FILED, WITH THIS RECORD ATTACHED, IN THE SITE MSDS COLLECTION.

MATERIAL SAFETY DATA SHEET FOR:

PRODUCT TRADE NAME/NUMBER: _____

MANUFACTURER NAME: _____

CHECK AS APPLIES: ☐ NEW PRODUCT ☐ REFORMULATION OR UPDATE
SITE EMPLOYEE ROSTER - List ALL employees who may be exposed to or affected by this product :

NAME (PRINTED)	SIGNATURE	DATE REVIEWED
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		

HAZARDS - The Site Supervisor will review this MSDS prior to distribution and highlight or otherwise note or call attention to any particular hazards involved in the use, storage, handling and/or shipment of this substance. In addition, the Site Supervisor will also ensure that any PPE, spill containment or special emergency response product specifically noted on the MSDS shall be readily available prior to introducing the substance for use in the workplace.

QUESTIONS OR CONCERNS (Questions or Concerns about this or ANY site chemical substance or product) should be addressed by the Site Supervisor, or forwarded to The Safety Department for review.

When completed (all signatures collected), Original Signed Copy shall be filed with the MSDS in the site MSDS collection and the site Chemical Inventory List updated to include this new product.



Personal Protective Equipment (PPE) Plan

TRADE SECRET & CONFIDENTIAL

DMS 0008-6837 R06
Date 2010-07-16
Page 1 of 10

Contents

1. Introduction	2
2. Responsibilities	2
3. Worksite Hazard Assessment	3
4. Procurement.....	4
5. Issuing PPE	4
6. Inspection, Maintenance, & Storage	5
7. Program Evaluation and Corrective Action.....	6
8. Training Requirements	6
9. Associated Documentation	7
10. PPE Matrix	7
11. History of this Document	10

1. Introduction

1.1 Purpose

The purpose of the Vestas PPE Program is to help protect all affected employees and others working or visiting Vestas worksites from injury or illness through the effective use of personal protective equipment.

1.2 Scope

This written plan details the policies, processes, procedures and practices required to implement and maintain an effective PPE program.

1.3 Application

This plan applies to all Vestas Americas employees, subcontractors, visitors and others who use and/or supervise the use of PPE while performing work procedures.

2. Responsibilities

2.1 Management

Executives, Project Managers and Regional Service Managers shall:

- 2.1.1 Ensure effective program development and implementation.
- 2.1.2 Provide Site Management with adequate resources and support to carry out program responsibilities and obligations.
- 2.1.3 Require adherence to all policies, procedures, practices and rules related to the use and care of PPE.
- 2.1.4 Oversee and evaluate site supervisor performance.
- 2.1.5 Recognize Site Management and employees for performance improvement.

2.2 Site Management

All Construction Managers and Service Site management shall:

- 2.2.1 Carry out all of their PPE Program responsibilities.
- 2.2.2 Ensure all technicians, visitors and contractors adhere to policies, procedures and rules related to the use, care and storage of PPE.
- 2.2.3 Ensure technicians, visitors and contractors have received training from a competent person and have adequate knowledge and skills to perform their duties using required PPE.
- 2.2.4 Require timely reporting of defective PPE or other PPE-related concerns.
- 2.2.5 Report concerns and PPE plan deficiencies to the HSE Department.
- 2.2.6 Conduct regular and random inspections of PPE to make sure all PPE is in good condition or replaced.
- 2.2.7 Ensure that employees properly wear, maintain, store and inspect PPE.
- 2.2.8 Verify that PPE is approved for the hazards presented and fully protects the user.
- 2.2.9 Make sure the use of PPE does not itself endanger the user.

4. Procurement

4.1 Selection & Purchase

4.1.1 The HSE Department shall:

- Select and evaluate PPE and ensure that equipment is compliant with applicable national standards and that it conforms to consensus standards.
- Update the List of Approved Safety Supplies periodically to ensure that PPE listed provides necessary protection and meets the comfort and fit requirements of the user.

4.1.2 Site Management shall:

- Prepare and submit a Purchase Request for PPE to the Purchasing Department. Reference the List of Approved Safety Supplies when completing a Purchase Request.
- Notify the HSE Department if substitutes or other items not on the List of Approved Safety Supplies are needed.

4.2 PPE Reimbursement Policy

4.2.1 Employees shall be reimbursed \$250 (USD) per year for approved safety footwear.

4.2.2 Employees shall be reimbursed \$200 (USD) per biennium, or whenever prescriptions change, for approved safety eyewear meeting the specifications on the List of Approved Safety Supplies.

5. Issuing PPE

5.1 Initial Issue

Each new employee will be issued a gear bag containing a standard set of PPE items prior to the start of work. (Please refer to AME-BP.03.11.00 – Procurement of PPE Bags for New Hires.) Issue of PPE equipment shall be documented using the PPE Issue Record (DMS 0008-6841).

5.2 Personal Fall Arrest Systems (PFAS)

Issue and inspection of PFAS equipment shall be documented using the Personal Fall Arrest System Inspection Record (DMS 0008-6842). Site Management shall use the Personal Fall Arrest Equipment Register (DMS 0008-6843) to help keep track of the equipment in use at their site. Refer to the Fall Protection section of this manual for more information regarding PFAS Equipment.

5.3 Hearing Protection

Hearing protection shall be issued and inspected at initial issue and as required during the normal course of work. Refer to the Hearing Protection Program section of this manual for more information regarding hearing protection.

5.4 Respiratory Protection

Respirators shall be issued and inspected initially and as required prior to and after use. Refer to the Respiratory Protection Program section of this manual for more information regarding respiratory protection.

6. Inspection, Maintenance, & Storage

6.1 Initial Inspection

Employees will inspect PPE during initial issue to ensure all items listed in the new employee PPE gear bag are present and verify PPE is in good condition. The inspection shall be documented using the PPE Inspection Form.

6.2 Daily Inspections

- 6.2.1 Employees required to use PPE will inspect the PPE issued to them to ensure proper fit, function, cleanliness and integrity, and to detect any defects or other unsuitable conditions at the following times:
 - at the beginning of the shift prior to the start of work
 - during the work shift as necessary
 - at the end of each work shift prior to PPE storage
- 6.2.2 When employees detect or suspect any condition, including the condition of storage containers, that prevents PPE effectiveness, they shall report the condition to site management.
- 6.2.3 Site Management will take immediate action to repair and/or replace PPE or defective storage containers.
- 6.2.4 Employees will provide feedback in a timely manner to site management about the effectiveness of PPE.

6.3 Annual PPE Inspections

- 6.3.1 Site management, or a designate, shall inspect all PPE, including PPE not specifically issued to individuals (e.g., extra fall protection equipment used for visitors) annually and document the inspection using the PPE Inspection Record.
- 6.3.2 Site management may also schedule quarterly, monthly or random PPE inspections as deemed appropriate.
- 6.3.3 All PPE Inspection records shall be stored in the Site Safety Records binder.

6.4 Equipment Storage

- 6.4.1 Site Management will ensure PPE is stored appropriately.
- 6.4.2 Employees shall use only approved containers and areas for storing PPE.
- 6.4.3 Lockers, storage bags, and other containers used only by an individual employee shall have the employee's full name affixed to the container.
- 6.4.4 PPE storage containers shall not be used for other purposes.

6.5 Disposition of Equipment

- 6.5.1 All damaged PPE that is not repairable to an original state by an approved repair procedure must be immediately destroyed and disposed of to prevent the possibility of further use.
- 6.5.2 Dispose of all PPE that is beyond its useful life as if it were damaged.

- 6.5.3 Document the disposition of defective fall protection and emergency descent equipment by completing an Equipment Defect Record (DMS 0008-6839). File the original in the Site Safety Records binder.

7. Program Evaluation and Corrective Action

7.1 Evaluation

The HSE Department shall conduct surveys, interviews, inspections, and process audits on a regular basis to monitor, measure, and record the performance of the PPE Program in accordance with OHSMS Program evaluation procedures detailed in the Continual Improvement Plan.

7.2 Improvement

The HSE Department shall develop and implement to PPE Program elements in accordance with the OHSMS Continual Improvement Plan.

8. Training Requirements

8.1 Initial Training

- 8.1.1 All employees whose job tasks or exposures require the use of PPE shall receive initial PPE training from a competent trainer prior to their first exposure to tasks requiring the use of PPE.
- 8.1.2 Site Management shall provide or arrange for hands-on training by a competent person on the specific PPE that is being issued. At a minimum, this training will include the following:
- why PPE is necessary
 - when PPE is necessary
 - what PPE is necessary
 - how to properly don, doff, adjust, and wear PPE
 - the limitations of the PPE
 - the proper care, maintenance, storage, useful life and disposal of the PPE
- 8.1.3 The trainer will document completion of PPE training on the Safety Training Certification form.

8.2 Retraining

Site Management shall ensure retraining is conducted when the following situations occur:

- Changes in the worksite or types of PPE required render previous training obsolete
- Employee performance in the use, care, or storage of assigned PPE indicates that the employee has not retained the requisite understanding or skill

8.3 Ongoing instruction and training

Site safety meetings will periodically include instruction and training on the safe use, care and storage of PPE.

8.4 Trainer Qualifications

- 8.4.1 Site Management shall designate employees who meet the following criteria as competent safety trainers and authorize them to conduct PPE training:

8.4.2 Employees designated as competent safety trainers shall have:

- been trained in PPE topics in Section 8.1.2, above
- experience in using the PPE
- demonstrated to Site Management adequate skill in PPE training

9. Associated Documentation

- Safety Training Certification
- Equipment Defect Record (DMS 0008-6839)
- PPE Issue Record (DMS 0008-6841)
- PPE Inspection Record (DMS 0008-6840)
- Fall Arrest System Inspection Record (DMS 0008-6842)
- Personal Fall Arrest Equipment Register (DMS 0008-6843)
- List of Approved Safety Supplies
- PPE Hazard Assessment Certification Form PPE Matrix (see Section 10 below)
- Descent Device Inspection (DMS# 0008-7903)

10. PPE Matrix

Areas (Service)	Long pants, long sleeved shirt	Long Pants, Short sleeved shirt	Safety Footwear	Safety Helmet	Safety Glasses	High Visibility Vest	Goggles with Strap	Hand PPE (Task Specific)	Fall Protection Gear	Lad Safe w/ Carabiner	Lock Out/ Tag Out Hardware
Parking lot, administrative areas											
Warehouse, shops and stock areas											
In a service truck on site (Includes Rental)											
At turbine pad											
Crane/Hoist work											
Ascending/descending tower											
In the nacelle											
Working near pressurized hydraulics											
Electrical troubleshooting											
In a hub											
Crane/Hoist work in hub											
On top of the nacelle											

- **Safety Helmets:** Safety Helmet requirements in shop and warehouse areas task specific, i.e. overhead hazards with forklift operation (25 ft. radius)
- **Safety Helmets in tower:** Required at all times. If a task requires hardhat to be removed, certain requirements must be met; unable to engineer this need out (i.e. different tools). Noted on the JSA, approved by site management, and area is inspected prior to work for overhead obstructions. Task in question must be in extremely tight areas where hardhat impedes access.
- **Hand PPE:** Task Specific (i.e. climbing, work with chemicals, sharp and rough edges)
- **Safety Footwear:** Required at all times, except for in Parking Lot/Admin Areas when arriving/leaving to/from work.
- **High Vis Vests:** Required when working around mobile equipment.
- **Safety Goggles:** Required whenever working around chemicals, fluids, corrosives in warehouse, in towers when working around pressurized systems or when breaking lines for the first time on newly de-pressurized systems.
- **Additional PPE:** Additional PPE may be required at times. Examples are High Voltage PPE and faceshields. This list of additional PPE is not all-inclusive.
- **LO/TO:** LO/TO may be required for these tasks, depending on the task being performed in the particular area. It will not be required in the parking lot, but may be required in admin area when working with electrical circuits.
- **Class Zero:** Long Sleeves - Employees standing or working in the base of the turbine or above the yaw bearing are required to wear the appropriate Class 0 PPE per NFPA 70E 2009.
 - The only exception to this requirement is when personnel are passing through the base of the turbine to access and climb the ladder or access the lift. Personnel waiting to access the ladder must remain outside the tower.
 - Long-sleeved shirts are required at the base of the tower due to the high arc flash potential. Long-sleeved shirts above the yaw bearing are required due to the potential for arc flash, working around high temperature equipment and work in close proximity to metal objects.

Areas (Construction /Projects)	Long pants, long sleeved shirt	Long Pants, short sleeved shirt	Safety Footwear	Safety Helmet	Safety Glasses	High Visibility Vest	Goggles with Strap	Hand PPE (Task Specific)	Fall Protection Gear	Lad Safe w/ Carabiner	Lock-Out/ Tag Out Hardware
Parking lot, administrative areas	X	X	X	X	X	X					X
Warehouse, shops and stock areas	X	X	X	X	X	X	X	X	X		X
In a service truck on site (Includes Rental)	X	X	X			X		X			
At turbine pad	X	X	X	X	X	X		X			X
Crane/Hoist work	X	X	X	X	X	X		X	X		X
Ascending/ descending tower	X	X	X	X	X	X		X	X	X	X
In the nacelle	X		X	X	X	X	X	X	X	X	X
Working near pressurized hydraulics	X		X	X	X	X	X	X	X	X	X
Electrical trouble-shooting	X		X	X	X	X		X	X	X	X
In a hub	X		X	X	X	X	X	X	X	X	X
Crane/Hoist work in hub	X	X	X	X	X	X		X	X	X	X
On top of the nacelle	X	X	X	X	X	X		X	X	X	X

- **Safety Footwear:** Required at all times when on the jobsite.
- **Safety Helmet:** Required at all times except while riding in work trucks.
- **Safety Glasses:** Required at all times except while riding in work trucks.
- **Safety Goggles:** Required whenever working around chemicals, fluids, corrosives in warehouse, in towers when working around pressurized systems or when breaking lines for the first time on newly de-pressurized systems.
- **LO/TO:** LO/TO may be required for these tasks, depending on the task being performed in the particular area. It will not be required in the parking lot, but may be required in admin area when working with electrical circuits.
- **Hand PPE:** Task Specific (i.e. climbing, work with chemicals, sharp and rough edges)
- **High Vis Vests:** Required at all times.
- **Additional PPE:** Additional PPE may be required at times. Examples are High Voltage PPE and faceshields. This list of additional PPE is not all-inclusive.
- **Class Zero:** Long Sleeves - Employees standing or working in the base of the turbine or above the yaw bearing are required to wear the appropriate Class 0 PPE per NFPA 70E 2009.
 - The only exception to this requirement is when personnel are passing through the base of the turbine to access and climb the ladder or access the lift. Personnel waiting to access the ladder must remain outside the tower.
 - Long-sleeved shirts are required at the base of the tower due to the high arc flash potential. Long-sleeved shirts above the yaw bearing are required due to the potential for arc flash, working around high temperature equipment and work in close proximity to metal objects.

11. History of this Document

Rev. no.:	Date:	Description of changes
00	27-Nov-2006	First edition
01	19-Dec-2006	Minor revisions and re-numbering due to re-organization of the OHSMS manual – Fall Protection now has its own section.
02	24-Feb-2009	Added PPE Matrix to Section 10 (TBD). All other changes highlighted in grey.
03	01-Jan-2010	Content revalidated and template updated
04	15-Apr-2010	Section 4.2.1: Safety footwear reimbursement updated from \$150 to \$250.
05	09-July-2010	PPE Matrices added to Section 10. DMS numbers/links for HSE Manual documents added.
06	16-July-2010	PPE Matrices updated (updates to long-sleeved shirt requirements)



VAME Respiratory Protection Program

DMS 0008-7994 R06
Date: 09-July-2010
Page 1 of 8

Contents

1. Purpose	1
2. Scope	1
3. General Requirements	2
4. Roles / Responsibilities	2
4.1 Trainer	2
4.2 Construction Managers/Site HSE	2
4.3 Employees	2
4.4 Tools/Materials	3
5. Procedures	3
5.1 Job Safety Analysis (JSA)	3
5.2 Selection of Respirators	3
5.3 Medical Surveillance	4
5.4 Fit-Testing	5
5.5 Respirator Use	6
5.6 Monitoring Respirator Effectiveness	6
5.7 Respirator Maintenance and Care	6
5.8 Identity of Filters, Cartridges and Canisters	7
5.9 Training	7
5.10 Program Evaluation	8
5.11 Recordkeeping	8

1. Purpose

The purpose of this program is to ensure that Vestas - American Wind Technology, Inc. employees are properly protected from airborne chemical hazards during their work activities. This is typically accomplished by using accepted engineering controls such as general and local exhaust ventilation. When engineering controls are not feasible, while they are being instituted, or in an emergency, only employees who have been medically evaluated, trained, fit-tested and certified in their use and limitations may use appropriate respirators.

2. Scope

This program applies to all employees who are required to wear respirators during their normal work activities and during emergencies. Any employee who asks to wear a respirator when one is not required (voluntary use) must comply with the medical evaluation, cleaning, maintenance, and storage requirements of this program. Any employee who asks to wear a filtering face piece (dust mask) is not subject to the medical evaluation, cleaning, maintenance, and storage requirements of this program.



VAME Respiratory Protection Program

DMS 0008-7994 R06
Date: 09-July-2010
Page 2 of 8

3. General Requirements

A physician or other licensed health-care professional (PLHCP) will be assigned the responsibility of confirming each person is physically able to perform assigned work while using a respirator.

4. Roles / Responsibilities

4.1 Trainer

- 4.1.1 Provide commitment and leadership to adhere to the requirements of the Respiratory Protection Program by assuming the role of Program Administrator.
- 4.1.2 Assist the construction managers and the site HSE representative in identifying areas where respiratory protection may be required.
- 4.1.3 Conduct and/or arrange for air sampling to evaluate the need for respiratory protection.
- 4.1.4 Assist with the selection and procurement of respirators.
- 4.1.5 Conduct an annual review of the program to ensure its effectiveness.

4.2 Construction Managers/Site HSE

- 4.2.1 Identify persons who are working in areas where respiratory protection is required and initiate the request for respirator issue.
- 4.2.2 Ensure that employees are medically able to wear respirators before assigning them to tasks requiring the use of a respirator.
- 4.2.3 Ensure that employees are properly instructed in the use and maintenance of their respirator and fit-tested before using a respirator.
- 4.2.4 Ensure that any person assigned to use a respirator is fully informed of the nature of the hazard.
- 4.2.5 Ensure that employees maintain all required respiratory protection devices in good repair and in a clean and sanitary condition.
- 4.2.6 Conduct regular inspections and evaluations to determine the continued effectiveness of the program.
- 4.2.7 Schedule employees for annual training, medical exam and fit testing.
- 4.2.8 Approve any changes, additions, or deletions to the Respiratory Protection Program.
- 4.2.9 Attend the training.

4.3 Employees

- 4.3.1 Use assigned respirators in accordance with instructions and training received.
- 4.3.2 Inform construction manager or the site HSE representative of any personal health problems that could be aggravated by the use of respirators.
- 4.3.3 Maintain respirator in good repair and use fresh filters of the appropriate type.

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

5/15/2012 4:21:37 PM

in

Case No(s). 12-0160-EL-BGN

Summary: Application of Champaign Wind LLC, Vol III, Part 36 electronically filed by Mr. Michael J. Settineri on behalf of Champaign Wind LLC