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Principles Regarding Occupational Health and Safety in Wind Power Plants

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Abstract

The growth of the world's population and the pace of industrialization will inevitably lead to a rise in the need for more sources of energy. The fact that our existing sources of energy are derived from fossil fuels has a negative impact on the surrounding ecosystem, and the reality that there is a finite amount of these sources pushes people to search for renewable energy sources that are also kind to the environment. Since our nation is in a very fertile location, the land that makes up our nation is well suited to produce renewable energy sources such as solar and wind power. When added forms of energy are taken into consideration, these two sources have the potential to easily

deliver twenty-five percent of the total energy needed to ensure a consistent supply of electricity to consumers. When this occurs, several added types of energy come into play. Wind and solar energy sources, which are expected to be the renewable energy sources that are used the most often in the future, each have their own set of advantages and cons to offer. For instance, if we compare solar power plants to wind power plants of the same capacity, we can see that solar power plants need a much bigger area. This is because solar panels need a lot of space to collect enough sunlight. A wind farm may be constructed on extraordinarily little land if the right conditions are there. When compared to the construction of a solar power plant, the process of erecting wind turbines is far more challenging. During the process of installing wind turbines, workers must fulfill their responsibilities at higher levels while paying incredibly careful attention to all elements of occupational health and safety. In addition to this, despite the limited daylight, it can obtain aid from solar energy. For instance, even if it is not used during the night, the efficiency of the product lowers when the weather is cloudy. Wind energy may be harvested at any time of the year; but, due to the unpredictability of the wind flow rate, the immediate production might vary quite a little. Wind energy may also be harvested throughout the entire year. Wind power plants have contributed around four percent of the total energy generated in our nation as of the year 2016, when compared to other types of energy production. Because of new investments, it is expected that this rate will grow over the next several years; thus, it is expected that there will be a demand for more personnel in this area.

Keywords: *Wind Power Plants, Occupational Health and Safety in Power Plants, Occupational Health in Wind Power Plants, Safety in Wind Power Plants*

1. Introduction

The personnel who will take part in the construction and operation of wind power plants, which are in the extremely dangerous business class, should be equipped with the necessary knowledge and experience for occupational health and safety due to the unstable situation of occupational health and safety in our country. This is because the construction and operation of wind power

plants are in the extremely dangerous business class. There should never be any exceptions made in the workplace to the rule that the preservation of occupational health and safety should not be compromised. According to this viewpoint, the purpose of this research is to provide in-depth information on occupational health and safety to workers who are employed in wind farms and to enable those workers to use this study as a guide for them to carry out their work duties in a manner that is safe for the workplaces in which they are employed.

2. A Brief Overview of the Wind Energy Industry

The use of wind power has a rich and illustrious history. It was found about 5000 BC that boats traveling down the Nile used the strength of the wind to drive themselves down the river. Around the year 200 BC, people in China began using windmills of a more primitive design to pump water. In Iran and other regions of the Middle East, however, grain was traditionally ground using windmills that had a vertical axis and blades made of reed.

Wind power arrived in Europe for the first time in the 11th century via a combination of commerce and the Crusades. The Dutch are credited with inventing windmills, and they after putting their inventions to use in the lakes and marshes that run along the Rhine. At the tail end of the 19th century, immigrants brought this technology to the United States. At first, it was used to pump water to irrigate fields and farms; later, it was used to generate electricity for homes and businesses. Immigrants managed bringing this technology to the United States.

Industrialization, which started in Europe and after moved to the Americas with the discovery of steam engines, resulted in a gradual decrease in the usage of windmills and sailing ships. The invention of steam engines had several unforeseen effects, including this one. The evaluation of wind energy was put up until after World War II because of the exceptionally low cost of diesel fuels at the time. This scenario played out right up to the end of the conflict. Wind turbines sprang to prominence as a potential answer to the severe lack of available electricity that persisted during these years of the conflict. In the 1940s, a wind turbine with a capacity of 1250 watts was used to

supply energy for Denmark's local electrical system. The price of fossil fuels has a direct correlation to the level of interest in wind energy, which may rise and fall over time.

The rise in fuel costs that occurred as a direct result of the oil crisis that occurred in the 1970s brought wind energy back onto the table. Projects that deliver power to the grid in groups from wind turbines in both Europe and the United States were created under the moniker.

In addition, because of developments in technology, the cost of generating electricity from wind energy has decreased to the point where it can compete with the cost of generating electricity from conventional power plants. This has led to an increase in the use of wind energy in commercial applications, particularly in the countries of Europe.

3. Incidents that occur at work

Accidents at work can include, but are not limited to, high-voltage electric shocks, slips and falls caused by leaking oils, being caught in rotating parts, exposure to chemicals, elevator breakdowns, vehicle accidents, and a wide range of other incidents. Occupational accidents can also result from a wide range of incidents. It is important to note, however, that the companies that make wind turbines are continuing to work on their own research and development as well as error correction to lower the amount of money they lose and avoid fires in the known components of the wind turbine.

One might be forgiven for thinking that problems associated with fires are of less significance in terms of their frequency when compared to other difficulties, such as the risk of mechanical failure in offshore wind turbines. On the other hand, it is well known that fires in wind turbines, particularly those that are placed offshore, may cause large losses (cost equal to or greater than the first cost of the wind turbine). The destruction brought about by fires in offshore wind turbines is far worse than that brought about by fires in onshore wind turbines. It is possible for fires to start in both open and closed turbines for the same reasons, which is not only a problem with continuity but also an issue with safety from the very beginning.

In 2013, a team of four engineers was killed after a wind turbine caught fire in Ooltgensplaat, which is in The Netherlands. The wind energy industry is still in its infancy in comparison to other energy sectors; as a result, there is not a great deal of study material for this sector in terms of occupational health and safety. As part of the process of compiling this research, a summary of the operating principles and common standards that have been adopted by the worldwide businesses that run in the sector in terms of occupational health and safety has been compiled. These working principles and standards have been compiled based on the requirements that have been decided by the European Union.

4. The Range of the Validity

It is important for individuals employed at the AO construction site as well as those employed at the AO construction site and shopping mall to pay attention to the concerns raised by this study in terms of the occupational health and safety, they manage. These should include anybody working for the company either at RT or on the ground, whether they are guests, permanent workers, subcontracted personnel, or anyone else.

5. Examinations Regarding the Health of the Patient

For a prospective worker to be recruited, they must pass a series of medical exams that are tailored to the tasks that will be expected of them on the job, and these exams must be repeated on an annual basis. If a member of staff does not pass the medical screening, they should be swiftly removed from the SC site, SC site and RT, or moved to a job that is better suitable for them. The use of safety gear needs to be conducted scrupulously by the instructions provided by the manufacturer and ought to be subjected to periodic controls in line with the purpose that it serves. It is imperative that you never use a KGD that is either broken, incomplete, or has expired. Training should be provided to anyone who will be using personal protective equipment (PPE). Each item of PPE must be able to pass a visual check as well as a test of its operability before it can be used.

It is not acceptable for people to run certain items of equipment if they have not received enough training in their operation. To take part in these trainings, documentation is necessary.

6. Garments Worn for the Purpose of Personal Protection

When you are working at RS, it is very necessary to always dress appropriately for the job to protect your health and safety. When working in conditions where there is a possibility of electric arcs, employers need to make it clear to workers that they must always wear protective apparel. For every task that must be completed, it should be needed that all staff wear high-quality safety work shoes. This should be the case across the board. Because of this, the bottoms that are developed for shoes by shoemakers shouldn't become stuck. This is since gravel that has been lodged in the bottom of the shoe has the potential to inflict significant harm if the worker steps into a wind turbine and then loses their footing. At the RS site, the RS work site, and the RTs, wearing a helmet or another type of approved head protection is mandatory. Caution should be used in the area that has the form of a circle and corresponds to the rotor's diameter. When dealing with DKKGD, it is strongly suggested that you always wear a hard helmet (seat belt, shock absorbing ropes or car). Additionally, the hard helmet must have a secure attachment to the chin strap to prevent it from falling off while the worker is doing his duties.

Raucous Machinery

When working in a noisy setting or when running loud machinery (like an angle grinder, for instance), it is essential to take precautions to preserve one's hearing (for example, when commissioning power cabinets). Even in environments that are seen to be reasonably quiet, one should never skip out on wearing hearing protection.

Safety measures for the lungs

When running in an area where hazardous substances are present, it is essential to have respiratory protection (dust, vapor, and gas) on hand always. When working in an environment where there is a risk of injury to the face or eyes, it is important to always wear goggles (e.g., flying parts, spilled liquids or hazardous radiation).

Studying the standards for the usage of personal protective equipment and the individuals who will be running it is another something that should be done carefully.

Equipment turbines, switchyard and power plant buildings, cranes, torque and tensioning devices, emergency landing apparatus (res Q), fire extinguisher tubes, first aid kits, medicine cabinets, slings, periodical control period of used generators, lightning rod for household needs, grounding (building, turbine, transformer, equipment, etc.), noise measurements, lighting measurements, PPE carrying bags, load carrying bags, eye showers, switchyard and electrical installations, noise measurements, lighting measurements, noise measurements, noise measurements

Checks are to be performed in the normal manner. Before each usage, the Periodic Control Form must be filled out in its entirety. The basic guidelines for functioning in a safe manner must be followed to the letter. Before working on spinning components or sections where snagging might occur, it is important to take off any loose jewelry, such as rings, necklaces/chains, and other types of jewelry, or to cover it with something (for instance, gloves). If you need to transport sharp objects while wearing pants, the only safe place to do it is in the thigh pockets. It is essential to amass a collection of knives. When moving tools from one location to another, carrying bags are the most time and effort saving choice.

There is a potential of coming into hostile animals due to the topography of the places where RS sites are situated, which is often mountainous. For instance, there have been reported occurrences of rabies in addition to injuries caused by stings from bees and snakes and attacks by stray dogs. Before workers begin their employment, the records of their tetanus vaccinations should be examined, and fresh records should be acquired every five years. Users of vehicles who want to visit the RS construction site are needed to supply a valid driver's license (SRC 4) that is proper for their vehicle. In addition, if they are bringing passengers with them, documentation that satisfy

the criteria of SRC 2 should be asked. At the area of the construction project, RS keeps a supply of nitrogen cylinders for usage in wind turbines (depending on the make and model of wind turbines).

7. Last Minute Risk Assessment (SDRD)

Before beginning the task, it is essential to do research on the proper working technique and the tools that will be used on the job site. When everything is organized and in its proper location, work can begin. If there are lingering questions or concerns, work should be placed on hold until these matters are resolved. An evaluation of the possible dangers that may already be existing in the working environment is conducted prior to the start of any activity. The hazards are examined not only in terms of the potential for accidents to occur in the workplace, but also in terms of the potential for accidents to occur with heavy items or the environment. These kinds of losses are also taken into consideration.

8. For Whom or What Is SDRD Conducted, and When Is It Completed?

The purpose of the SDRD is to increase people's awareness of possible dangers in the workplace in the hopes of lowering the number of accidents that take place in that setting. Because it must be completed at once before the activity, SDRD can only be completed by those individuals who will be taking part in the activity personally. In this approach, scenarios that can result in an accident can be found and evaluated according to the specific circumstances. As a result, SDRD is not meant for anybody other than yourself and the other people at your place of employment. Because in the end, if anything unpleasant does place, you will be affected by it in some way, no matter how it plays out. Evaluation is done to avoid circumstances like these.

It is something that, in general, is conducted all the time. In general, you should be executing a continuous SDRD whenever possible, such as when you wish to pass another vehicle in a car, and

this includes situations in which you can do so. You evaluate the situation, considering factors like as your own capabilities, the car's immediate speed and performance, other vehicles on the road, the path the road takes, etc., and then you take proper action based on your evaluation. This activity needs to become standard operating procedure in the workplace. The SDRD checklist has been developed so that you will not forget any of the essential components of the system. In the real world, this means that you should conduct a basic SDRD whenever you begin a new task or day, and you should also execute SDRD once specified work phases are finished throughout an activity. The wonderful part about it is that you do not have to bother about performing SDRD individually since it is done automatically without having to think about the technicalities. This is a huge time saver for you. In other words, it is essential to acknowledge that not all prerequisites for risk-free operation are satisfied, and to automatically implement suitable safety measures. This is a prerequisite for risk-free operation. It is not permissible to use SDRD in any manner to display anything to anybody else; its only purpose is to aid the user. Nevertheless, if exceptional circumstances arise during an SDRD (for instance, if a work must be done differently than what is described in the law), those exceptions and the procedures that were taken should be noted.

9. Communication

Communication is of the utmost importance, particularly in settings where there is the possibility of danger. As a result, it is essential to give some consideration to the potential of keeping in continual communication with the other party. On building sites that employ people from other countries, it must, at the very least, be needed to speak English or another common language that everyone present is capable of comprehending. Effective communication abilities are essential for persons to have in approved roles such as crane operator, load hanger, or crew chief. It is also crucial that these people have.

The risk of snowflakes and ice storms

If an "icing" error message is received, the service center should deactivate the RT and move it such that the flaps face away from the incoming path. Because ice sheets might potentially melt within the engine room, it is essential to keep the routes in the danger region as short as is practically possible. Once the cargo has been unloaded, the cars should be positioned at the assembly site at a location that is as distant as possible from the tower. It is essential that the RT / construction site be protected from entry by unauthorized individuals. At the location of the construction project, caution signs should be installed in the access area (outside of the danger zone), the entry to the tower should be closed, and access to the outer ladder should be restricted. It must have warning signs that are tied to chains and hung at the entrance to the turbine site to prevent anybody from approaching the area. It is essential that there be members of the security staff always present. According to the operational safety requirements, the responsible staff of the authorized firm are bound to educate the foreign workers working at RT, WPP sites, and construction sites about any relevant safety information. If there is foreign staff or visitors in the risk zone of the RT's RS construction site or RS site, all work should be halted until these individuals have the proper personal protective equipment (PPE) and are given a safety briefing. These cautionary statements need to be included in the report. It is in everyone's best interest that the information be valid only for a specific assignment or, if the same circumstances stay, for a maximum of one year.

As an added safety measure, visitors must first be given a safety briefing before going to the place or venue in question. Prior to accessing the construction site or site, KK and RT vs RT versus safe and hazardous parking spaces in the RT area should be taught by authorized company staff. RT versus safe and dangerous parking spaces in the RT region. The information and adaption training for visitors should only be valid for one year, and their records should be kept and re-transmitted to the individual who has ended the year. the training should be documented in a report.

Documents that must be obtained from subcontractors and/or kept in personnel files Before beginning work, the individuals who will be working in line with Occupational Health and Safety Law No. 6331 must first successfully complete the necessary training for inspections. This is

needed before they may begin working. For instance, workers who will be employed by RT are needed to supply proof that they are able to do their duties while standing on elevated platforms.

Those who run heavy equipment must have an operator's license, and those who drive on public roads must have a driver's license that is suitable for class G driving. (Article 80 of the State Law on Highway Traffic) Documents saying that personal protective equipment is supplied and used in the workplace (Regulation on the Use of Personal Protective Equipment in Workplaces) It is always important to ensure that the safety equipment already installed in the work area is in good working order. Documents saying that personal protective equipment is supplied and used in the workplace (Regulation on the Use of Personal Protective Equipment in Workplaces) a. stop bolts, b. safe climbing ladders, and c. other climbing equipment, if supplied d. guardrail rotor locking arrangement e. emergency off button are some instances of these:

a) A warning sign positioned in front of the risk area or at the entry area of the RT.
b) Fire safety precautions.
c) Rescue and first aid procedures.

It is proper to restrict access both temporarily and permanently, depending on the circumstances. The stairwells and any service elevators, for instance, must have their entrances closed. Under no circumstances whatsoever should it ever be acceptable to disable safety equipment.

10. A plan for dealing with emergencies

The aim is to devise a plan and conduct the necessary steps to avoid causing harm to workers, halting work either partly or entirely, and having a negative impact on the surrounding environment in all unusual circumstances that may arise in the RS area. It is for the purpose of preventing harm and damage to employees in any exceptional conditions that may arise in the RS area, as well as to halt the operation in its whole or in part, and to have a negative impact on the environment. This instruction applies to everything that is done at the RS site, including actions conducted by personnel, contractors, visitors, and trainees. RS workers: If a crisis, he is bound to

fulfill the responsibility that has been delegated to him. In addition, there are things that must be done, such as: a. Being familiar with the emergency organization; b. Being aware of the emergency exits, roads, hallways, and doors; and c. Helping the personnel and acting by the instructions that have been provided.

Anything that looks out of the ordinary need to be reported to whomever oversees security or to the person in charge of the emergency response to keep yourself and the people around you safe. The core of emergency management is having the ability to foresee the development of prospective issues and effectively recover from risky circumstances while minimizing the amount of collateral damage that occurs as much as is reasonably practical. It is the team that is formed in specified areas that are the same for all crises and takes the event as well as the repercussions that may come in emergency circumstances and brings it under control. This team is built in the same places for all crises. This group is sometimes referred to as the emergency team. Concerning the danger, by methodically addressing the hazards identified as a result of the risk assessment, in order to prevent the emergency and/or to prevent it from occurring with the least amount of collateral damage possible, and in cases where the disaster cannot be prevented, through training and implementation, management of tools and equipment, and coordination of research; and in cases where the disaster cannot be prevented; in order to prevent it from occurring with the least amount of collateral damage possible; in order to prevent it from occurring with the least amount of collateral damage It is just as vital in the process that involves the development of facilities and environmental protection plans as it is in the communication on the situation.

Implementation of RS The management team handles developing the contingency plan.

a) *An administrative and command building.*
b) *a hazardous waste site.*
c) *Transformers.*
d) *An internal needs generator.*

Below is a list of possible emergencies identified in the survey in which emergency risk was assessed.

a) *Earthquake*
b) *Fire*
c) *Work Accident (Closed injuries or traffic accidents)*
d) *Sabotage/Attack*
e) *Poisoning*
f) *Environmental Accident*

Management and coordination of all urgent messages are tasks at hand.

It is the responsibility of the AD Leader or the AD Assistant to supply the necessary resources to react appropriately to emergencies. This entails coordinating with entities from the outside and supplying equipment for emergency response. Additionally, it is this person's responsibility to notify any emergencies to the relevant government authorities, as well as any community groups or local institutions that may be affected. This individual handles managing all the internal "Safety" reporting for all crises.

Groupe divide Primaire: If an emergency, it is his duty to supply first aid and make sure that the wounded person continues to breathe in the time that it takes for medical professionals to arrive at the site. If an emergency, it is their duty to make certain that no other members of the staff put the patient in risk. It is necessary to supply the emergency response unit that manages calls for 112 with information that is both truthful and understandable on the situation surrounding the wounded individual. Those tasked with this responsibility are tasked with ensuring that there is always access to first aid materials. The person who is part of the fire response team should have the physical conditions necessary for fire response, be familiar with the company, and be able to intervene in possible fire and rescue events that may occur until the professional teams arrive. The primary duty of the person who is part of the fire response team varies according to the business. The following is a rundown of the tasks that are shared by all members of the team:

a) First of all, to respond appropriately to extinguish the fires that may occur in the area for which it is responsible and to continue to check the situation.

b) to create and keep safety corridors so that the fire truck can move freely in the area, and to make the first response by putting the existing fire extinguishing materials, equipment, and devices into use in the most effective way and as soon as possible.

c) When the fire trucks arrive at the scene, they activate the alarm system

They are accountable for aiding with the evacuation of the whole institution as well as supporting rescue personnel that arrive at the scene. The group that oversees the evacuation and the communications. It is easy to get correct information on the number of staff members, visitors, and trainees if one counts everyone who is present at the assembly point. It looks for any flaws and then alerts the person in charge of the emergency. If an emergency, it is his responsibility to contact the emergency manager and give him the instruction to seek aid from the relevant organizations. To conduct what they set out to do, they work together with the conservation and rescue team.

The Protection and Rescue Team manages the following duties and responsibilities:

a) *If a crisis, it is his job to manage the flow of traffic and ensure that all doors leading into and out of the building are open.*
b) *It is their duty to ensure the well-being of workers by herding them together in a secure location appointed as the assembly area.*
c) *If an emergency, responsible for protecting both people and property.*
d) *If a crisis, the priority is to rescue any live creatures, followed by people, animals, plants, etc. In some circumstances, there are records, files, and other material that need to be retrieved.*

Emergency equipment

a) Fire Detection, Warning, and Alarm b) Fire Cabinets c) Fire Extinguishers d) Emergency Evacuation Plans e) Emergency Signs f) Fire Cabinets g) Fire Extinguishers h) Emergency Signs

Emergency Evacuation Plans

a) Fire Detection, Warning, and Alarm Systems: b) Fire Cabinets: c) Fire Extinguishers: d) First Aid Supplies:

Training Each member of the staff receives training in emergency preparedness and first aid, contingency and catastrophe management, firefighting, and how to safely evacuate the facility. Training on occupational health and safety, as well as information on the company's emergency protocols, is given to newly hired staff members as part of the onboarding process.

Those who are specifically tasked with dealing with crises get specialized training in the actions they manage. Drills, annual inspections and reviews, and any necessary regulatory and preventive actions are conducted to guarantee that the prepared emergency plan implementation steps are adhered to and conducted on a consistent basis. This is done by ensuring that the steps are followed when putting together the emergency plan in the first place. In the report that is prepared, the date of the exercise, the observed shortcomings, and the adjustments that are to be done by the deficiencies are included. Because of the drill, emergency plans, if there are any, are examined, and any required adjustments are made considering the flaws discovered and the insights obtained from the exercise.

Review In the event that there are modifications made to the workplace that may influence the previously recognized crises or produce new emergencies, the emergency plan is either completely or partially revised, depending on the severity of the impact. In addition, the emergency plan that has been set up undergoes testing on a biannual basis. The workers who are working in the switchgears and turbines evacuate to the assembly point if an earthquake, at which point the earthquake is expected to conclude. A search is conducted if there is field staff who does not arrive to the assembly site. They act by considering the operational safety by contacting the business unit manager and any of the other technicians, respectively, if the people in the field need to leave the field because of the information they get from their relatives. It is decided if the diesel generator

has sustained any damage. The diesel generator is now running, and if there is any risk, the generator will be manually shut down. In addition, the generator is manually shut off by the size of the earthquake if there is a risk of energy in the control building. Damage control procedures are conducted on the Closed Cell apparatus. Calling YTM results in the flow of information between both parties. The information that was received is accounted for in the later actions that are conducted. From the server, the status of the turbines may be seen at any time. Service Technicians and people responsible for maintenance are notified if a turbine becomes stuck in its rotation. If there is damage to a turbine, the turbine will be placed into "emergency stop." By the findings of the damage assessment, the feeder to which the turbine is linked will have its power disconnected, if that turns out to be needed. It is now possible to do damage control on buildings (control, security building). After all of the damage control measures have been taken, an assessment of the situation and a decision about whether or not the facility will function will be made. If there will be an increase for snow that falls, the administrative personnel will leave the field with their cars before the road is blocked and an unusual shift scenario will be started. It is expected that a dozer will be used to reopen the road the following morning if it was blocked after nightfall. After the shift change, the shuttle vehicle is gone with to ensure that it arrives in the city without incident. The Dozer service truck clears the path to the power plant at the beginning of the shift. Dozer and shift changes are conducted again if the route stays blocked beyond 48 hours. During this period, the usual gear system is switched into place if the snowfall ends, and the road is reopened to traffic. If there is a problem with the turbine, a dozer has been made available to clear a path to the turbine for the service truck that will do maintenance on the turbine. After the maintenance workers have completed their work on the turbine, they will be followed by an escort as they leave the site to safeguard their safety. This procedure should coincide with a shift change whenever it is practical. As soon as the weather returns to its typical state, the dozer will be brought in to clear all the main and minor routes. The security officers must adhere to the shift change schedule as well as the shuttle truck hours.

If the turbine comes under attack: a. The presence of the security guard at the location is assured.

a. *The energy that was being supplied by the feeder(s) that were connected to the turbine is switched off.*
b. *The command center receives consistent updates from the security personnel.*

According to the information that was gathered, if the assault is aimed at the control facility, the power to the facility is turned off, and the facility itself is moved to a secure location outside of the field so that the staff can view the field. The officer of the security firm, the gendarmerie or the police, and the manager of the operations unit are kept apprised of the latest developments surrounding the issue. The officer of the security firm, the gendarmerie or the police, and the manager of the operations unit are kept apprised of the latest developments surrounding the issue. After the threat has been eliminated, an assessment of the condition and damage will be made. • If an injury, first aid is administered, and the emergency number 112 is dialed. As a direct consequence of doing the proper due diligence, information is provided, if needed, by phoning YTM, and action is performed based on the information that is obtained. The problem has been brought to the attention of the Manager of the Business Unit.

When the workers discover that there is a fire in an area that does not have a warning system, they push the fire alarm button to alert the working staff of the blaze. Meanwhile, the security people react to the blaze using the first response vehicle. If the fire is in a segment that is powered by electricity, the situation is remedied by turning off the power to that area. Without the interruption of the water and electricity supply, there will be no interference at all. If there are not enough dry chemical powder fire extinguishers available, a backup plan consisting of carbon dioxide fire extinguishers will be used. If the fire spreads out of control, the fire brigade number 110 will be sent. Notification is sent to the Manager of the Business Unit. If the fire cannot be brought under control, all the staff will either evacuate the area or wait in a secure location with the relevant paperwork in their possession.

11. Conclusion

Every day, there are increased wind power facilities being constructed around the United States. Because of this, it is unavoidable that there will be an increase in the number of people who will work for the purposes of building and operation. Because of this, there are a few fundamental aspects of occupational safety and health in the building and management of wind farms, which are in the highly risky business class. For this reason, all workers should pay attention to these aspects throughout their work. These things need to be found in advance, actions ought to be adopted, and such measures ought to be drafted with the involvement of industry professionals and those who run in the sector. Through the development of operational safety instructions for the dangers that have been recognized, existing risks need to be removed entirely or cut down to an acceptable level. Both risk evaluations and directions for operational safety must be open to change. It should be regularly amended, taking into consideration the changing situations, and the most recent versions should be given to the staff members without causing any complications. It is critical that operational safety instructions and risk assessments be in a format that can be easily understood and implemented. To conduct this aim, it is necessary for all operational safety instructions and risk assessment reports to be drafted by a committee with the involvement of field personnel. It is important to decide if the papers that have been generated are really used in the field. It is recommended that a system be devised that will guarantee that personnel at all levels, beginning with the top supervisors, would adhere to these principles without making any exceptions.

12. References

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