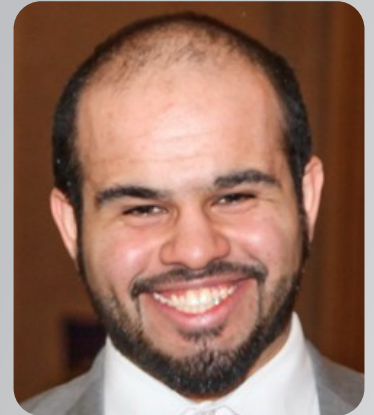


# Managing Your EPC Project Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj



## Introduction

During the life of humanity, the world has seen many disasters, either because of nature like earthquakes, floods or diseases, or something caused by human war or nuclear/chemical pollution. All of the previous examples are just a shortlist of the things that might hinder your project. The paper's subject is about the actions that need to be taken during external causes of project delays and specifically during the COVID-19 pandemic, which could be applied on similar situations in the future. The paper will take you on a journey of handling mega oil and gas projects during difficult times similar to the one we are experiencing these days in 2020-2021, which may extend many years more. The technical paper's objective is to share knowledge and recommendations, and enlighten some areas for the project team where it could be easily missed due to the magnitude/complexity of the situation.

## Background

The news started spreading about the Novel Coronavirus (COVID-19) outbreak back in December of 2019, where the people around the world started getting worried about this new disease that they had heard started in Wuhan, China. It did

not take long before the European and many other countries started seeing some positive COVID-19 cases in early 2020. Death numbers started to rise and people's worries dramatically increased. Around the beginning of February/March 2020, countries started to have restrictions and some understanding of the symptoms and the way this virus can transmit. Demand for facial masks and hand sanitizers went very high and governments started having more and more restrictions for traveling and gatherings.

If your project occurred in the middle of all of this chaos what should you have done? Should you have cancelled your project or extend the execution time? What about the project procurement and the placed purchase orders? What about the construction that just barely started? Many such questions are being raised today. I will try to put forward some actions and recommendations that could help you in reducing the impact of the pandemic on your project.

## Keywords:

- Project
- Schedule
- Plan
- Adjustment
- Cost
- Challenge
- Contract

# Managing Your EPC Project

## Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj

### Paper Body

Actions to be taken for ongoing contracts: Whether you are the client/purchaser or the contractor/supplier, this applies to most ongoing contracts during and after the pandemic or similar tragedies. For the ongoing contracts (we are talking mainly about lump sum turnkey [LSTK] projects but it could be tweaked to your type of Contract by utilizing only applicable actions), you have to first communicate with your contractors about what are the impact and you should expect the same from the other party. Not all the data may be available; however, you should communicate the soonest you have any updates that might impact the other party whether it will have a positive or negative impact. You have to think about the contractual milestones and what kinds of schedule adjustments you need to consider. This is in the basis on which the supplier/client or buyer are willing to continue the project with certain adjustments as deemed necessary.

Governmental regulation changes should be monitored, especially those related to the goods clearance regulations and manpower visa requirements as these areas are directly impacting the project phases, specifically project procurement and construction. The reason this paragraph is included under this section of the paper is for the project team to review these changes and consider them in the development of the contract amendment.

Below are a summary of some steps/advice you have to think about and take the necessary steps to tackle it in timely manner:

- Communicate frequently and keep an open channel between the two/more parties involved in the Contractual agreements.
- Meet, discuss, negotiate, and try to reach agreements on the contractual terms and conditions that need to be adjusted as a result of the pandemic/disaster.
- Try to be open to ideas to overcome the impact and adjust as necessary to help facilitating the contractual amendment (as an example of the ideas to be considered is quality requirement adjustments when allowed by the organizational guidelines and applicable standards).
- Be ready to give some concessions as much as possible, which will help in reaching final agreement among project parties.
- Discuss and agree on the schedule/cost/quality adjustments, which we will tackle in more details in the following sections of this paper.
- Speak out your concerns and hear from the other side, which is related to the first point.
- Discuss and agree on the impact(s) on the project EPC. Specific actions/recommendations will be provided in the upcoming individual sections for each phase of the project.
- Cost/Contract Value adjustment is an area the project team needs to consider and discuss in detail with the other party to ensure alignment.

# Managing Your EPC Project

## Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj

- Try your best to avoid taking long time to reach agreement. As soon as you have sufficient data and at least a clear path forward, you should proceed to lower or reduce the impact on the project as much as possible.
- Once agreement is reached and finalized on all of above items make sure you cover the agreement in an amendment or similar mechanism based on your organizational procedures and guidelines, to be signed and legally binding for all parties involved in the contractual agreement.
- Document all your work as you may face many challenges with your ongoing contracts that may lead to disputes and claims. So being vigilant and documenting all your work will help you in case you encounter such a situation.

### **Actions to be taken for project cost, schedule and quality:**

Subjectivity and different methods can be followed to manage the project “triangle,” i.e., cost, quality and schedule, through difficult times. There are some essentials that must be done to ensure that you run the rest of the project in a clear and smooth manner. The first thing you should know/think about is what is your organization’s financial status. will the impact have a negative influence on the cash flow of your organization? In case the answer is yes, then the next step is to know the allocation to your project out of the available cash flow (limitation of cash flow could lead to stoppage or cancellation of the

whole project, which depends on the organizational priorities). Other items to consider:

- The contract value adjustment(s) if needed.
- Based on limitations of cash flow, what is the impact on the payment between the client/buyer and the supplier/contractor?
- Opportunities to reduce the cost impact by releasing the bank guarantee, for example, is an area where it could ease the negotiation and reach agreement among the parties.

The next item to think about is your schedule and the impact on your project milestones. As mentioned earlier, depending on your organizational priority, your project could be deferred until the situation improves and more cash flow is available, or your project may continue on the same path with some adjustment(s) to the project schedule. The most important thing, in my opinion, is to focus on the main milestones during the development of the updated contractual amendment, and then the parties can agree on the intermediate activities during the course of the project. A significant impact is expected on project procurement, which will be covered in a dedicated section later. This is another area of concern a project manager or company representative should take into consideration while developing the new project schedule.

Now let’s talk quality and, as you may expect, the reason quality is included in this section is the impact it has on the first two

# Managing Your EPC Project

## Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj

items, i.e., cost and schedule. Think about your quality in detail and search for opportunities within your project scope that may allow for cost optimization and/or schedule improvement. Quality is important and different organizations have different approaches to quality. Regardless of the quality system your organization is using, look for the opportunities that will not hinder plant performance. They should have a big potential to be negotiable items that can be agreed on so a contractual agreement can be signed at no cost impact.

### **Actions to be taken for project Engineering:**

If your engineering is complete, then you are good to go to the next section of the paper. In case the pandemic started when you were at the beginning or in the middle of your engineering work then, first of all, you have to think about remote communication and exchange of project documents between the parties. This is one of the most important items to agree on. Following that, you are advised to develop a communication protocol. This is for all the parties and personnel involved to know and be well aware of their responsibilities during the course of the remote/distance work. What about engineering reviews (usually different organizations have different ways of reviewing the engineering work, with some conducting the reviews progressively, others having phases, and some using a combination of both systems)? Whatever your organizational method in reviewing

the engineering deliverables, make sure that all the parties involved are well aware of the tools they have in hand and the available timeframe and expectation from each individual/team/party. Engineering events need to be considered in your planning (an example of the events could be HAZOP and 3D model reviewers). The project team needs to consider the virtualization of these events to ensure both the safety of the involved individuals and the continuity of the work. These reviews might be challenging to organize, especially if people from different time zones are involved, so you may try to be flexible in the timing and stretch the review cycle to an acceptable extent to meet your contractual milestones. Suggested steps to be taken for major events:

- Announcement to be distributed in advance to all involved personnel to ensure their availability.
- Schedule the events within the working hours schedule as much as possible (this is to be considered in case you are dealing with different time zones).
- Establish the communication method and protocols.
- Make sure that all the involved individuals have the necessary tools to make sure of their valuable times.
- Try to manage meeting intervals to be within acceptable lengths to avoid loss of attention.
- Have frequent breaks for people to stretch and get some snakes.

Difficult times require challenging actions. Just make sure to communicate frequently

# Managing Your EPC Project

## Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj

and address concerns and technical matter in a timely manner. Where possible, and allowed by your organizational guidelines, be flexible and monitor your engineering progress carefully. Do your best to minimize negative impacts on the schedule so the project meets contractual milestones.

### **Actions to be taken for project procurement:**

One major factor in any project success is material procurement, and the better performance we achieve with procurement the more likely the project will be successful. Procurement, like any other phase in a project, can easily slip and major impact could result during difficult times. Careful discussions and official communication with the vendors/manufacturers should take place to ensure that they are still committed to supply the equipment and bulk material required for the project. The project team should set and discuss procurement status and the expected impact on the whole project and what needs to be adjusted. Depending on how advanced you are in your construction activities, the above items could impact your project differently; sometimes, the failure of the vendor/manufacturer to commit to the agreed upon delivery could hinder your whole project and shift the project completion; specially if it is in your critical path. I advise the following steps to ensure a smooth transition though project challenges to have a minimal impact on your overall project performance:

- The project team needs to carefully study the procurement delivery and evaluate the need for changing delivery to a site based on the newly agreed upon schedule to minimize the storage and material preservation requirements as much as possible.
- Preservation for equipment and bulk materials needs to be evaluated thoroughly, and I suggest to include the vendor/manufacturer in this critical step. Storage locations need to be evaluated and provided as necessary (think about the expiry dates for chemicals and similar products, and materials that require shade and air conditioning; for example, paint).
- A vendor's/manufacturer's commitment to delivery dates is mostly impacted as a result of the COVID-19 pandemic. However, the project team has to be careful in reviewing the information we receive from vendors/manufacturers as some will try to take benefit/advantage of this critical event to gain more time or request additional compensation.

### **Actions to be taken for project Construction:**

For every project, construction is one of the big challenges and needs to be managed well as time could easily slip if we don't carefully plan our activities. Even though this is obvious and very general advice, many projects have failed because of bad planning of the interlinked activities. Having said that, you are now faced with a bigger

# Managing Your EPC Project

## Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj

challenge, which is associated with the restrictions of travel for project manpower, equipment and bulk material delivery delays, safety of personnel on site, etc. For us to minimize the impact on the construction activities we need to be careful in reviewing all the activities and carefully assess the dependent activities. This can be achieved by working closely with the project stakeholders and contractors in the re-planning process as it will be your roadmap for the subsequent tasks.

The next step is to study the manpower load on the project site and the distribution of manpower to ensure the safety of personnel, and at the same time maximize the utilization of the manpower by increasing the productivity. The project manager and personnel responsible for the safety and well-being of personnel on site needs to establish a key performance indicator (KPI) to monitor the team members' well-being and safety. Increasing personnel morale by introducing incentives and rewards, as applicable, to keep project momentum high and continue receiving their full energy. Communication a key, so always keep your team informed and well aware of the situation around them as they need to feel secure during difficult times. Moving to the suppliers/contractors on site, the same goes to them as we need to keep them informed and ensure their engagement to get the most results during the pandemic. You have to build on the relationships with the project suppliers/-contractors and communicate with them frequently. Keep them informed of any

changes that will directly or indirectly impact on them. The suppliers/contractors are the main players when it comes to the planning process, so we need to ensure that all the agreed upon adjustment(s) to the contractual milestones are properly reflected in the Construction schedule. Construction is one of the main areas where you have to evaluate your organizational cash limitations as it will directly impact your progress on site. Based on your organizational guidelines, and how big the impact will be in your invoice payments, communicate your cash limitations with the project's main suppliers/contractors and let them feel comfortable as much as possible to assure them you are still committed and you are in this situation together.

### **Recommendations:**

As a general advice, the project team is advised to conduct a brainstorming and risk analysis session(s) to review the possible scenarios and the possible actions needed to overcome the impact of the pandemic or similar difficult situations for the project. In summary, the recommendations below, where applicable, could help your project though and after a difficult time similar to the COVID-19 pandemic:

### **Contractual:**

- Communicate frequently and keep an open channel between the two or more parties involved in the contractual agreements.
- Try to be open to ideas to overcome the impact and adjust as necessary.

# Managing Your EPC Project

## Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj

- Be ready to give some concessions as much as possible, which will help in reaching final agreement among project parties.
- Watch out for governmental regulation changes as these changes can directly impact the project phases and specifically project procurement and construction.
- Speak out your concerns and hear from the other points of view.
- Document your work all the way as you may face many challenges with your ongoing contracts that may lead to disputes and claims.

### **Project Cost, Schedule and Quality:**

- Think about your organization's financial status. Does the impact have a negative influence on the cash flow of your organization?
- Focus in the main milestones during the development of the updated contractual amendment as applicable.
- Think about your quality in detail and search for opportunities within your scope that may allow for cost optimization and/or schedule improvement.

### **Engineering:**

- Make sure that all the parties involved are well aware of the tools they have in hand, the available time frame, and expectations from each individual/team/party.
- Communicate frequently, address concerns and technical matters in a timely manner, be flexible where possible and allowed by your organizational guidelines.

### **Procurement:**

- The involved project team should set and discuss all the procurement status, the expected impact on the whole project, and what needs to be adjusted.
- Preservation for equipment and bulk materials needs to be evaluated thoroughly.
- The project team has to be careful in reviewing the information we receive from vendors/manufacturers as some will try to take benefit/advantage of this critical event to gain more time or request for additional compensation.

### **Construction:**

- Review all the activities and carefully assess the interlinked activities.
- Work closely with the project stakeholders and contractors in the re-planning process as it will be your roadmap for the subsequent tasks.
- Study the manpower load on the project site and the distribution of manpower to ensure the safety of personnel, and at the same time maximize the utilization of the manpower by increasing productivity.
- Build on the relationship with the project suppliers/contractors and communicate with them on a frequent basis.
- Based on your organizational guidelines, and how big the impact will be on your invoice payments, communicate with the main project suppliers/contractors your cash limitations and let them feel comfortable as much as possible to assure them that you are still committed and you are in this situation together.

# Managing Your EPC Project

## Though Difficult Times (COVID-19)

▲ By Marwan Alarfaj

### Conclusion

In conclusion, there is no right or wrong during difficult times for a project. Depending on the situation, different actions need to be taken by the project team. Furthermore, there is no secret formula or steps that can guarantee your project success; however, following these recommendations can benefit your project from many aspects and can put the project back on the right track to success.

As a final advice, have trust in yourself and your team and build trust with your stakeholders and suppliers to ensure a smooth transition through the difficult times. Communicate frequently, plan carefully, and always document your work. Stay safe and ensure safety for the people involved in your project. Keep motivating your team and continue providing your support to everyone involved in your project. With God's blessing, the difficult times will go and you will have a success story to share with everyone.

### References:

Airlines Magazine- the International Air Transportation Association (IATA) article (Link:<https://airlines.iata.org/news/air-lines-continue-to-burn-through-cash-0>)