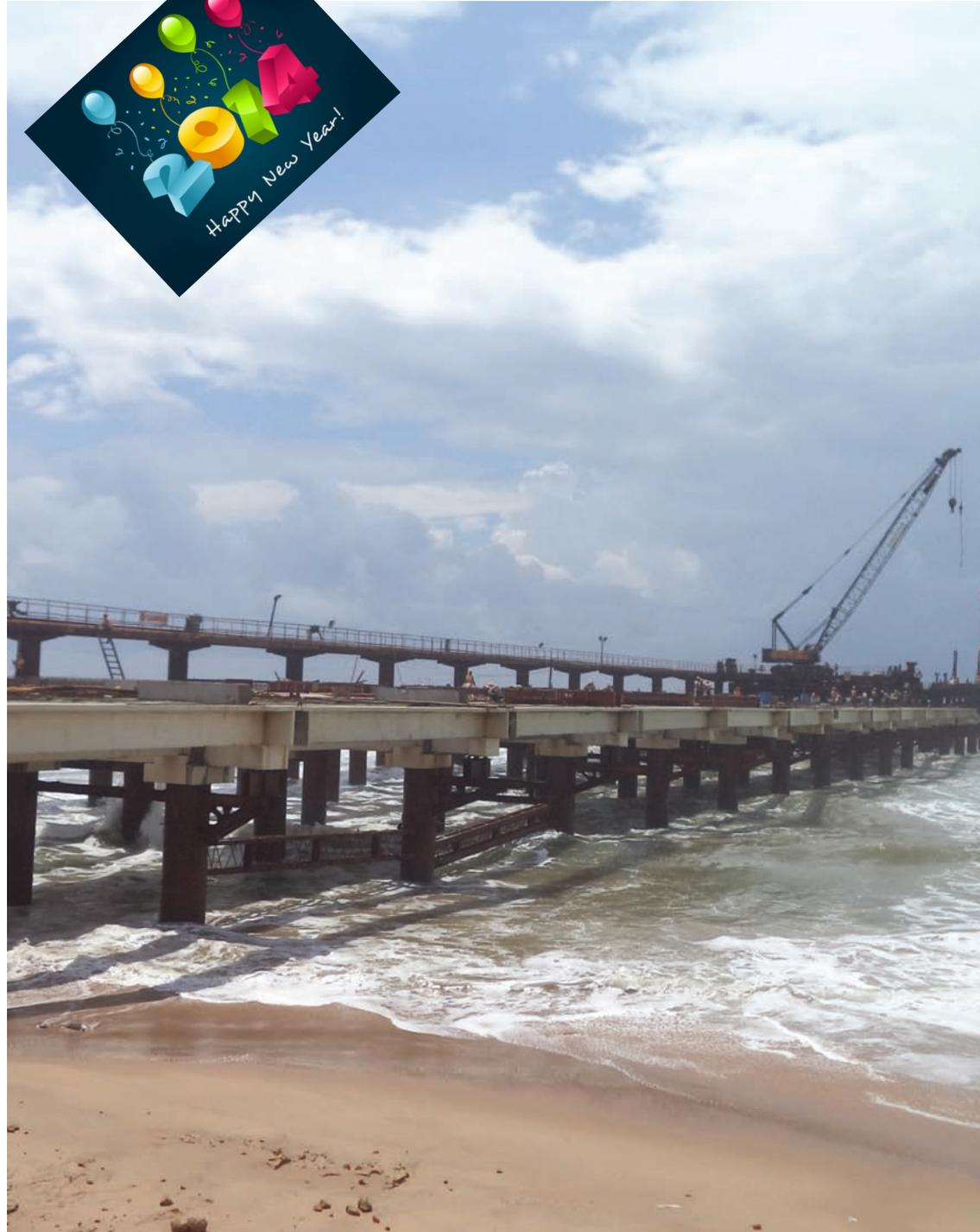


# **GAMMON** **BULLETIN**

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## IMS POLICY



## Editorial

We are pleased to publish October-December, 2013 issue of Gammon Bulletin.

We take pleasure in presenting some of our recent significant achievements, successes, learning and events from across the country to our Gammon family, our esteemed customers and other beloved stake holders.

In this Quarter we invited all Project-in-charges from sites to Mumbai for large scale interactions. A need was felt since long to re-bind the entire Gammon family through a large scale personal interaction. Accordingly this Meet was convened with certain specific objectives in mind. The Meet has been rightly named as परिवर्तन Meet symbolizing the large scale परिवर्तन that we want to bring in ourselves through self-realization. In this Meet, our focus was on how to regain our past glory using our fundamentally strong foundation and our enviable inherent strengths.

We hired services of the Consultant - M/s. Institution Builders represented by Mr. Kanti Gopal and Mr. Amitabh Babbar who were painstakingly involved in redesigning the programme and making it more interactive and converting as a LSIP (Large Scale Interactive Programme).

Members of the Design Team at HO as well as few representatives from site attended several rounds of design meetings and arrived at the agenda for the Programme which was most appropriate under current circumstances. The programme needed lot of pre-works and will also need lot of post-works on the part of all of us in HO and at sites and the success of the Programme will depend upon such post-works and hence it is absolutely necessary for us to spend quality time in post-works.

This परिवर्तन is not a onetime short duration event. This परिवर्तन is a journey - a journey to bring in परिवर्तन in all of us to realize dream of our beloved Chairman to make Gammon as a top ranking construction giant.

Building bridges is not new to Gammon but a major Project involving a Rail-cum-Road bridge in steel bridging mighty river Ganga posed unique challenges even to Gammon. This 3.69 km long bridge is in advanced stage of completion. The detailed Article by Mr. Aavek Panja explains technical intricacies of this steel bridge and how Gammon team innovatively overcame all challenges.

In our quest to continually improve the Bulletin, we will be glad to receive feedback and suggestions from our valued readers to make Gammon bulletin more and more interesting and informative for the readers.

Your feedback and suggestions may please be sent to [bulletin@gammonindia.com](mailto:bulletin@gammonindia.com)

We wish **HAPPY NEW YEAR - 2014** to all our valued readers !

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## परिवर्तन MEET : HIGHLIGHTS



1. "I think each one of you is a star. He (Mr. M. U. Shah) has rightly called you all stars. I think each one of you is a reservoir of strength for the company. I think in terms of knowledge and what you have

to do and what you are doing I think each one of you knows very well. I don't think we need to reeducate you or tell you exactly what is required to be done. You have been doing this day in and out. We took up this PARIVARTAN meet for improvements. We discussed many things in last three days. Parivartan is not a short term event of two or three days. It is a journey. We would like you to carry forward this PARIVARTAN and continue doing this every single day. We need to think every day - every hour as to how we can we improve our performance. What we have discussed and agreed here has to be taken back to sites. You are the ambassadors of goodwill. You have to motivate each of your colleagues at the sites and achieve our corporate goals."

2. "Mr. Agarwal, I think the point Mr. Sainani is making ( about structured meeting between CMS and Purchase) is absolutely valid and I think you should put a specific time slot and follow it religiously like we have a Monday meeting. I think, not once a month but once a week or once in a fortnight. You should plan fixed slot of 2 to 3 hours with each of the CMS and sit with them and go through all the issues in a structured manner. Please right away start this. It must happen and I must know that the meeting has effectively taken place and please email me what is happening. The time table must be fixed in advance as CMS keep on traveling."

3. "Other very important point is that use wherever power is available from the grid. I don't want to see any diesel generating sets working on the sites. It's very expensive. It's a killing thing. I mean at the most we can have generators for emergency but it is not to be used for normal operations. Sometimes we are taking years trying to get grid power. We must ensure that we have grid power within few months of establishing site. It saves crores of rupees".

- CMD



"If we were to go by our current cost structure of HO overheads, interest costs on working capital and plant depreciation, we would achieve a breakeven at 15.9% (for a turnover scenario of Rs. 3000 Crores per annum) or at 11.4% (for a turnover scenario of Rs. 4500 Crores per annum). That means in order to breakeven or to make no profit no loss, sites needs to contribute at least 11.4% to 15.9% depending on the turnover scenario. Please remember this would mean just breakeven with zero profit. But you will agree that no organization can survive with zero profit. We have to add 5% as minimum profit. That means sites have to contribute effectively 16% to 21% to achieve the profitability (before tax) of merely 5%. And if it is 7% then 18% to 23 % needs to be contributed by sites. This is a very rudimentary concept but I am not sure how many of us are aware of these numbers. Some of us may opine that these levels of contributions are high but I am afraid this is a reality and these are the actual numbers that the Company is incurring."

- H. V. Parikh



1. "We have claims of over Rs.2000 to Rs.3500 Crores. Is it right? Good claims worth Rs.3,500Crores are there. One day definitely we are going to realise these claims. These claims will not realise immediately but will realise over a period of time. Thus right now we are going through a temporary mismatch of liquidity. In our family we come across difficulties. Our brothers and sisters face difficulties. Sometimes our children pass through a difficult phase. In such moments, we get united and jointly face the difficulties. We join hands and fight the difficulties as one cohesive joint family. In moments of difficulties, people get together and that is why we are all here. So this is not the time to get frustrated. There is no point in creating the feeling of

helplessness. Each and every person in the organisation is important in his own way. We can break even the hardest stone but the stone is not broken by the last blow alone – prior to this last blow several blows were needed. Many blows have fallen on that stone before that crucial last blow. All of us need to work together. If we work together as a cohesive team, there is no difficulty which we cannot overcome. Believe me in next 12 months' time we can be easily out of it. Have faith, have patience, show ownership, show dedication."

2. "We have spoken about fast track project execution, right? We have got a crisis right now on many existing projects and there are few projects just started out, right? So can ten Project-in-charges in the room standup and say I am going to make my project very different from the way I have been doing in the past. I want any ten Project In-charges to standup and say I am going to run my project very differently. These projects will run as model projects and I will ensure that whatever is required to be done for running these projects as model projects will be done.

Those ten people will be on fast track special support system. We will ensure that it will happen but I want ten persons to stand up in the room right now. Even more persons can stand up. Come on, don't worry; you get up. I need change."

- Ajay Munot



"I just want to give some suggestion so that we can reduce the cost as well as the time. As regards DI Pipes, please note that DI Pipes, if I remember correctly, permissible margin is plus or minus 3%.

If specification does not specify that it has to be positive, we may supply the pipe close to minus 3%. Many people are forgetting this. Your cost will be reducing by 3%. When you are supplying the structural plates, please note that permissible rolling margin is as high as 10% minus and nobody

specify it is to be positive. TMT bars are now being supplied on the negative rolling margin. Please ensure that. As regards CRS, it takes a long lead time when CRS is specified like in Panvel Bridge and Dharamtar Creek Bridge. I did lot of R&D work and we proved that TMT bar is equal to CRS and as result we got the approval. SAIL gave the letter but today we are not finding that letter. When I talk to Joint Chief Engineer, Pawana Bridge he said, "Dr.Nayak, if you produce that letter I will permit you." This will save you Rs. 3000 per ton.

Earlier we had done the exercise of mapping location of all cement factories in India w.r.t our job locations. Now we have to re-start that practice. The distance matters in delivery as well as the cost. I told this to Mr. Vijay Agarwal but we have not been able to do it. Please mark out on the India map the locations where cement of different types is produced. You take cement from the nearest point which will reduce the cost as well as time. Along with the cement more and more important is GGBS. Sources of fly ash also need to be marked on India map like cement and GGBS. Now IS code permits fly ash.

Thirdly for the Project Manager and the CMS, as Mr. P.M. Baride knows, unless there is an emergency or unless special cases, your indent has to be received before 25th of the preceding month for next month's requirement. Once you do that your job will be much simplified."

- Dr. N. V. Nayak



1. "What we feel good is that generally we do the job much better between 20% to 80% stage. During this part of the job, we are always on track. But our main problem is that we

mess up the job in the first 20% and last 20% portion. We do really well between 20% to 80 % stage but our problems are in the first 20% and the last 20% portion. In fact I would go to the extent of saying that over a period, we have collectively, as a team, mastered the art of messing up first 20% and last 20% especially in the last few years. There are several examples to this effect which I would not like to mention. Let us un-learn this. Managing the first 20% of the job is our biggest challenge. If

we mismanage the first 20% of job, it is very difficult to get back the job on rail. Not only clients are highly dissatisfied but we lose heavily if we handle first 20% of job poorly. Similarly last 20% of job is also our biggest challenge. We are unable to start site winding up process well in advance of anticipated completion date because of variety of reasons though we were taught by our veteran leaders to start site winding up process well in advance of anticipated completion date and time limit norms were fixed for that. The best part is central part – the heart of the job that is what we do nicely."

2. "Mr. Palak Bhattacharya and Mr. Goverdhan Bhutada, you have done a great job on modernization of plant and I very much appreciate hard work done by you and your team. As regards other aspects, I have few suggestions. I think improvement on staff front is required. Plant staff constitutes major part in LMR. We need to rationalize deployment of staff. We know, for example, in hydro sector how much plant is there is and we can add some floating population of plant and arrive at optimum level staff requirement and freeze the same in the beginning of the project itself and once we, after due deliberations, freeze this strength, the strength at site cannot exceed the above level. In absence of such guidelines, what happens that sites keep on hiring more and more LMR staff at site on one pretext or the other-sometimes even for peak demand of short duration and once staff strength increases, by default, such increased strength continues for longer and longer period.

Second thing is a standardization of a layout. If we move across all sites, we will find so many cables are lying and not being used because of non-standard layout of Batching Plant with relation to main supply point. If we have a standard planned layout applicable everywhere, same entire set can go from one project to another as a whole integrated unit. When we were there at site, we never purchased any cable. In my career as a Project Manager in the first fourteen years, we never purchased a cable, never purchased any switch boards, never purchase ECBs or anything like that but managed by transfer from one site to another. We know the requirements have changed but because that was coming from one site to another we were saving on costs. That is not happening now. Every time we are purchasing new cables and

new switch boards and related items. All such items in aggregate may be costing us as much as 2 to 3 percent of money in terms of our turnover.

Thirdly in good olden days we had Mahindra jeeps as standard passenger vehicle across all sites. There were no Innovas, no Bollerros; nothing like that – one standardized vehicle i.e. only Mahindra jeep. We need to have some vehicle standardization across the company. If we have something which is comfortable and economical in its capital cost and its running costs, it should serve the purpose. We will save lot of money because huge money is going on passenger vehicles.

Fourthly as regards outside plant hiring, lot of improvement is required. We made a mistake in last few years to hire Batching Plant from outside. It is unconventional for Gammon. We were used to produce our own concrete for decades but because we are not having Batching Plant we started this bad practice and made ourselves vulnerable to recurring demands of RMC subcontractors at site. In good olden days the only plant we were used to hire was Hydra Crane and that for durations of few hours or at the most half a day or one day. As against this old practice, we have now developed the habit of hiring more and more plant items and that too for longer and longer duration. If someone from HO comments, we have tendency to defend the outside hire- perhaps I would also do the same thing. I think self-imposed discipline is the best remedy for this malady as no amount of external pressure can change our habits. These are three to four suggestions of mine on which if you can work, it would be nice."

3. "The logistic team is here and I really appreciate the entire logistic team. I think you have produced more than 2,500 documents. I believe that they have never undergone any training for this kind of LSIP or they have never been briefed. But they have performed their job very nicely. I don't know who is their leader - whether it is Col. Harish or whether it is Mr. Manish Sinha or Mr. Shailendra Sharma, we do not know. But as a team they have done a wonderful job. There is no chaos. There is no confusion. All participants are very nicely placed in the room. All arrangements are just perfect. We get the documents in time, there is no jumbling of any document and there is

good clarity of role. I think that is the best way to make a beginning for an organized Company. We learned a lot from you. Thank you very much. Kudos to you all in logistic team! "

4. "I assure you, Sir, on behalf of everybody that we will do everything possible to bring back the glory of Gammon and we will take Gammon to greater heights and rebuild Gammon – the Gammon of your dreams."

- A. B. Desai

1. "We, in Gammon, are at a critical juncture now. The currently prevailing situation call for quantum jump in our operational efficiency, paradigm shift in our attitudes, strict adherence of self-imposed internal discipline, implementation of extensive cost control and austerity measures and improved decision making mechanism for faster and optimized decisions to ensure timely delivery to our esteemed customers for regaining their trust and confidence. These challenges have in fact given us an opportunity to have a fresh look at our current practices, introspect ourselves and re-commence our journey towards better tomorrow with positivity, optimism and vigor. This is also the most appropriate time for us to set our priorities right and re-organize ourselves to meet tough times ahead and move ahead of competitors as in today's tough times only fittest would survive."

2. "All of us are managing our personal finances. Corporate Finance has similar analogy and we can understand Corporate Finance by applying this analogy.

Our daily household expenses have to be met from our monthly income. If our monthly expenses are more than our income, I don't think we can survive for long. May be for few months, we can survive on the credit cards but at the end of the day, we have to pay the credit card dues along with the hefty interest. So the most fundamental thing is that our monthly household expenses need to be met from our monthly income. If our income is not increasing, we have to reduce our expenditure or reduce our standard of living. Yes, for capital purchase, we can take help from the bank. If we want to buy a car or a house, we can avail long term finance from Banks but day-to-day household

expenses will have to be necessarily be met from out of monthly income and for meeting the household expense we cannot even think of bank finances.

For corporate entity, the analogy is exactly the same. Our overhead and other expenses will have to be met from our revenues. For capital purchase of plant and equipment, we can avail long term finance from Banks but for day-to-day expenses we cannot think of availing bank finance. If there is an imbalance between revenues and expenses, no corporate organisation can survive for long. The way we are not expected to depend upon banks for taking care of our personal household expenses, we cannot depend upon bank finances for non-capital expenses in corporate environment. If there is imbalance between revenues and expenditure, we have to reduce expenses and achieve equilibrium between revenues and expenses but we cannot think of bank finances for meeting routine overhead and other expenses"

3. "Thank you Mr.Heggade for the nice introduction of your team. I would like to just add two things to the introduction of your team given by you. Mr. E Chidambaram has successfully completed Surajbari Creek Bridge. It was 1.3 Km long NH bridge which he completed three months ahead of schedule in spite of devastating earthquake of 7.1 magnitude on Richter scale at the bridge location with epicenter barely 70 km away. In recent past we have not achieved this type of extraordinary success in other projects. So, credit goes to the entire team. It was an excellent tendering; excellent designing (without any quantity over runs with respect to tender quantities), excellent plant management, excellent contract administration etc.. Off course, a factor in terms of Dr.Nayak's follow up was also there. All these factors contributed in the completion of this project three months ahead of schedule in spite time loss because of devastating earthquake.

Mr. Chidambaram was at site, when a devastating earthquake came. When SOS call came from clients that one of the client's Engineers is stuck up in debris, site team rushed to Bhachau village with JCB leaving their families in the hands of God while aftershocks of smaller magnitude were still continuing. Though they could not save the life of Client's Engineer, the

fact remains that leaving their families unattended they rushed to save the life of Client's Engineer. All the site staff including their families were without roof for 10 to 15 days under extreme temperature condition but still they did not stop the work at site even for a day. This is the commitment of site people in Gammon. I think they deserve a loud applause.

The fast track execution was for everything starting from collection of mobilization advance payment. I remember mobilisation advance Bank Guarantee was received from bank at 11 a.m. which was to be submitted to clients - 600 Km away from Mumbai which included 100 Km surface travel and 4.30 p.m. on the same day mobilization cheque was received. You can imagine 11:00 am we received Bank Guarantee, somebody rushes to airport, flies 500 Km, then again 100 Km by surface travelling and at 4.30 p.m cheque is in our hands. That was the fast track speed at that time. So we have to go back to that type of fast track execution in all activities. Credit goes to the tendering team, credit goes to the Design team and other Departments in HO, credit goes to Dr.Nayak for his relentless monitoring and of course Project-In-Charge and his entire team who under most difficult circumstances achieved this great success. Even the devastating earthquake could not dampen the spirit of Gammonites. They did not stop work even for a day as it was a strategically important bridge. The existing bridge which was strategically located on route to Pakistan border was also damaged in the earthquake. Hence, from strategic point of view it was very critical. CMD was getting calls from Mr.Atal Behari Vajpayee's office. The damage to the new bridge included longitudinal displacement of girders of all 32 spans, breaking of seismic barriers, damage to neoprene bearings needing replacement etc. The new bridge which experienced devastating earthquake on 26th January involving such massive damages was opened to traffic on 2nd March – barely within 35 days after duly carrying out all repairs. That was a great achievement – almost like a miracle and the credit goes to the site team, especially Mr. Chidambaram who is a silent worker.

I also want to add similar thing about Mr.Amal Bhattacharya who was working at Kandla Oil Jetty Project. During execution, this site experienced a devastating cyclone with 200 km

per hour speed. Gammonites were not worried about saving their own lives but they were worried about company's assets. One Engineer went back to office to collect a theodolite from the office even though the entire office was flooded with water to the extent of 2 to 3 meters. After he escaped from cyclone and came to safe point, he remembered that a theodolite was lying in the office. He did not bother about his life. He went back to office to collect the theodolite at the cost of his life.

Second thing what I said about Mr. Thippeswamy that he used to get up at 5 o'clock in the morning and go to site, same applies to Mr. Amal Bhattacharya who used to get up at 3 o'clock in the morning for some work which has to be done in low tide. That level of low tide may come during day time after a month, but he was not prepared to wait for that one month. He used to get up at 3 o'clock in the morning to take advantage of that low tide level. Some people abandon the work at first obstruction e.g. one category of people come back without doing the work and say to their Project Manager: 'What can I do? The boatman did not turn up. I could not reach pier location and could not work.' but not a person like Mr. Bhattacharya. He used to go to the labour colony, wake up the sleeping boatman, pick him up and complete his task which was to be done during low tide. This is the commitment of Gammon team. We salute all such committed people."

4. "I think three things are most important (as regards energy costs). We took initiative and in the month of October 2012 organized a two day awareness workshop in Nagpur specifically on how to control energy cost in general and diesel cost of power generation in particular.

We had given a directive that grid power has to be used to the maximum possible extent. In general diesel generators are to be used only during power breakdown and not as a primary source of power. The primary source of power has to be grid power which can be supplemented by diesel generators to take care of breakdown of grid power. This may require paradigm shift in our attitude but I am afraid we have no option but to work on our attitudes. This is the need of the hour. Our mental block prevents us from using grid power on one pretext or other like our site is peculiar and there are lots of

power breakdowns at our site or we will have to provide transformers or we will have to bring electric line from a very long distance or large deposit will have to be paid or minimum charges are very high etc. and we always adopt a line of least resistance of using generators. However, if we put down everything on a piece of paper and objectively analyse grid power v/s diesel generators, we will find that invariably grid power is highly economical vis-à-vis power generated using diesel generators even in the worst case scenario of considering all the negative factors stated above though many of those negatives are more in our mind than a reality. Now as a Parivartan exercise, let us take an oath that we will use grid power as primary source of power except where objective analysis proves otherwise.

Secondly in the awareness workshop, we discussed in details ways and means of reducing cost of power generation using diesel generators. Though few sites have responded positively to that initiative, even now Power generation cost (bare diesel cost) at many other sites are as high as Rs. 25 per unit to Rs. 30 per unit. So something has to be done drastically. Some sites have done that but others are yet to do that. Diesel cost of power generation should be less than Rs. 12 per unit and not Rs. 25 per unit. Some sites are able to achieve that after that awareness workshop. We appreciate efforts of those sites that have responded positively and achieved the target of optimum cost of power generation but still many sites continue to incur costs as high as Rs. 25 per unit. You can imagine what would happen to our cost structure, if one unit of power costs Rs.25 for diesel alone apart from which we have to add the operator cost plus depreciation cost of generator. In addition to restricting use of generators as secondary source of power only for taking care of breakdowns of grid power, we have to be very cost effective in terms of power generation cost using diesel generator whenever we use diesel generators during breakdowns of grid power.

Thirdly for site colony, my humble suggestion is that we must use smallest possible capacity generator depending upon size of colony. It is highly uneconomical to use 125 kva generators for site colony. Similarly each requirement of power at site, has to be met using lowest possible capacity of generator rather than using higher capacity generator. Even if we have to purchase a new lower capacity

generator, it is advisable to use lower capacity generator rather than using higher capacity generator as savings generated by using lower capacity generators far outweighs investment in small capacity generator and it will payback itself in couple of years. In fact few months ago, when we did this exercise of replacing high capacity generators by smaller capacity generators, we could withdraw as many as twenty higher capacity generators and brought back the same to Regional Workshops for storage. We have to keep on doing this exercise on a continuous basis."

- M. U. Shah

"One point which is discussed by our group (and I am happy that you have taken as an action step) is that internally we are losing lot of time in comparison of prices and placing the PO. What I find that a price comparison sheet is also physically routed through all the tables and after it is approved, draft PO is made and again that PO is also routed to all the tables. I don't see any necessity for this duplication. If some data is missing in price comparison sheet, let us put that and take the approval once only. In my opinion we will save 7 to 10 days lead time between the indent and placing of PO if this duplication is eliminated. I feel this can be eliminated.

Secondly, we are talking mostly about A category items like cement and steel but we have seen that the chimney and cooling tower jobs are suffering for engineering items also. What I request that you allot one day in a month (not asking one day in a week or one day in a fortnight) to me or my other RCMS who are handling the bought out items. You may discuss and finalize with me or with my team all these brought out items. I can give you list of the items required in a system as an indent. We can sit together and finalize. Next month, we can review what action you have taken so that there is a visibility after one month. I would like to know whether you will supply these items to me or I have to manage through site. Presently we keep on throwing the responsibility to site back and forth. There is no visibility- no clarity. Every time we discuss, we ask for MIS. We just go on generating documents and my team is getting frustrated."

- R. B. Sainani

1. "In my opinion when we are talking of out of the box solution, we should cover the whole of the current Project Management model itself. Is it really effective and efficient in controlling the time overrun and related YS expenditure? Over a period, our Project Management, for variety of reasons, has become inefficient and consequently because of the time overrun and additional YS expenditure of large magnitudes, we have now landed up into the vicious cycle of low billing, low receipts, low recoument which in turn induces further low billing and so on. We keep wondering which is first and which is next or which is cause and which is effect or which is egg and which is chicken and we keep on making allegations and cross allegations on each other but today the fact remains that we are entangled in a vicious cycle. Unfortunately that is the situation we are in. I think we need to address this critical issue as the first priority item and de-entangle the same so that we come out of vicious cycle without any further delay. Each day of delay in coming out from this vicious cycle means several millions of Rupees are down the drain. We cannot continue to operate below break-even turnover any more. Each site much achieve turnover in excess of its break-even turnover and as a whole at corporate level also we must operate above break-even level."

- V. N. Hegdade

2. "In addition to whatever the non-negotiables we discussed now, long time back we discussed Contract Appreciation Document including contractual risk analysis. I do not know somehow it is not being made. I think Contract Appreciation Document including the contractual risk analysis (only contractual risk analysis – here we are not talking about other risk analysis which is different from the contractual risk analysis) is very vital. I think some draft was made and that was discussed also for a long time. If it can be brought out, contractual risk identification and mitigation can be addressed. I think we have to work towards that Contract Appreciation Document. We are making for each and every project Salient Features. We should start making Contract Appreciation Document for the bigger projects say more than Rs.50 Crores. Making Contract Appreciation Document will greatly help analysis of contractual risk including its identification and mitigation."

"Are we familiar with Fish Bone Diagram? Many of us eat fish and are aware how bones of fish look like. Those who don't eat fish, just imagine for the purpose of understanding. Let us say that there is a malady that we have identified for which we want solutions. We draw Fish Bone Diagram or it is also called as cause and effect diagram. Root causes are the causes at root level which were responsible for maladies which have surfaced. So what we do first is that we write down precisely the malady on right side, then we put a line and then we imagine removing the outer cover of the fish – the skin of the fish and we will see a skeleton of the fish with several lines (primary lines) and then for each line, in turn there will be further lot of lines (secondary lines).

So if we look at one of the choke and its primary, secondary and tertiary root causes, it will resemble like a bone of the fish. Hence the name Fish Bone Diagram.

When some malady surfaces in the system and if we want to eliminate the same at root level, we need to analyse the malady at its root level. Analysing malady at superficial level is not good enough- it needs to be analysed at root level. Thus we will find that there are lot of causes and within that causes there are lots of sub-causes. So in Fish Bone Diagram we first see the causes and then see the causes of those causes. This we do by asking Why? Why? Why? and then we come up with the new causes but at some point of time we may realize that this is the root cause – the kind of reason why this entire malady has surfaced and once we identify the root cause we stop analysing further and we work on such root cause. When we identify root cause scientifically like this and work on it, the solution that we arrive will be a lasting solution but on the other hand if we don't work on the root cause and we work on superficial causes; in spite putting lot of efforts, we may not get the desired results – the kind of results root cause can give us. When we catch hold of the root cause, not only the impact will be large but also the solution will be long lasting. However if we do not go to the root level, the solution so arrived will not be a lasting solution and also it will not create the impact which root cause analysis can create. This is the underlying philosophy behind the Fish Bone Diagram or cause and effect

diagram.

Also, as we know, Pareto principle is applicable universally and hence we must identify what are the two or three vital things which can give us the maximum results otherwise we may be working on several trivial things and impact may not be so high."

- Kanti Gopal

"At site level it (contribution) should be 30%. Site should get back 70% out of total collection and balance 30% is retained at HO. I think 10 years back it was 70:30."

- A. D. Alawani

"The first non-negotiable thing is maintenance of Risk-Register. We don't have any format or guidelines for that. So we suggest that WSS / legal in consultation with MKTG may come out with the format of Risk-Register and guidelines thereof. This is absolutely non-negotiable.

The second point is that the strategically prepared base program must be submitted within stipulated time normally it is 28 days or 21 days after the award of the job. This must be done after considering Employer's obligations. The Employer's obligations must be considered in the program because particularly for road projects, land handing over is done in stages on one hand and on the other hand there are milestone related penalties and hence unless the base programme is prepared with proper application of mind, we are sure to land up in problems. So Employer's obligations must be included in the program and it is suggested that a joint meeting is convened between CMS, Planning, Project Manager and WSS prior to preparation of this program.

The third most important thing – the absence of which has caused deep anguish to me, is the flow of information and (formal and informal) continuous communication between in the Project Manager and concerned WSS person. We can ensure that if there is proper flow of information, we can protect all our rights and we don't default on account of that and notices particularly as per FIDIC contract conditions are issued within prescribed time limits."

- Sanjeev Diwadkar

# WHAT DOES परिवर्तन MEAN FOR ME ?

- M. U. Shah

## 1. I AM OK, YOU ARE NOT OK

Since the last five decades, I have been taking the life position that 'I am OK and the other person is not OK'. This has been my mental block which presupposes that everything is fine within me – no improvement is required within me and only opposite person needs to improve or needs to change. With this mindset of mine, it was difficult for me to look into my own shortcomings which were many.

Today, I realize how wrong I was.

परिवर्तन Meet has given me an opportunity to introspect and work on myself for the change expected from me to meet tough challenges ahead.

परिवर्तन for me, then, means changing this mindset of mine and admitting that it is possible that I could not be OK

## 2. NEGATIVISM AND FRUSTRATION

Since the last five decades, I have been nurturing negativity with resultant frustration. My eyes got trained to search negativity all around and negativity being contagious, I was also becoming instrumental in spreading it.

Today, I realize how wrong I was.

परिवर्तन Meet has given an opportunity to me to change my orientation to look for positivity instead of negativity.

परिवर्तन for me, then, means removing negativism and frustration and spreading positivity and optimism. Like negativity, positivity is also contagious. Let me change my orientation and let me start looking for positivity and let me spread positivity and optimism across whole Organization.

## 3. VITALS V/S TRIVIALS

Since the last five decades, I have been used to get bogged down by 'Trivials' though Pareto Principle is well known to me. Trivial items have tendency to

keep on surfacing every now and then demanding my attention at the cost of Vital items. Vital items are few in numbers and are hidden among these Trivial items.

Today, I realize how wrong I was.

परिवर्तन for me, then, means sharpening my skills to segregate 'Vitals' from 'Trivials' and paying attention on to those Vitals. I, as a leader, have to identify these Vital items and dig out the same from pile of Trivial items for putting 80% of my attention and time it deserves. Unless I develop a habit of segregating vitals from trivial and focus on vital items, with single mindedness of purpose, I will not be in a position to achieve the success.

## 4. PRIORITISING

Since the last five decades, I am confused with my priorities and I seldom get my priorities right.

Today, I realize how wrong I was.

Today I realize that whole life is all about priority. First thing must be done first. Management Gurus even go to the extent of advising that 'Do first thing first and do not do second thing at all'. The purpose of this exaggeration is to drive home the point that first thing must be done first.

परिवर्तन for me, then, means, deciding my priorities rightly and adhering to the same.

## 5. MORE OF PERSONAL COMMUNICATION

Since the last five decades, I am using less and less of Voice Communication. I am so much addicted to e-mail culture, I have, in the process, forgotten to have the Voice Communication at personal level.

Today, I realize how wrong I was.

I have got latest electronic gadgets of communication with me, but voice

communication is missing; so is the personal communication.

परिवर्तन for me, then, means to do more and more of Voice Communication with personal touch.

## 6. BLAME CULTURE

Since the last five decades, when something goes wrong, I have been used to blame someone, not knowing it is more important to identify the root cause and take corrective action to prevent the same from recurring in future rather than finding out who was at fault.

Today, I realize how wrong I was.

Today, I realize that Blame Culture damages the inter-personal relationships beyond repair.

परिवर्तन for me, then, means blaming myself rather than others.

## 7. TENDENCY TO CRITICISE AND ABSENCE OF PRAISE CULTURE

Since the last five decades, I have been used to criticize everybody at the first opportunity and praise none.

Today, I realize how wrong I was.

परिवर्तन for me, then, means, me taking oath that "When I am tempted to criticize, I will bite on my tongue; when I am moved to praise I will shout from the roof top".

## 8. GETTING OVERWHELMED BY CURRENT OR RECENT ISSUES

Since the last five decades, I have been used to get overwhelmed by current or recent Issues. My mind was used to be always pre-occupied with these contemporary issues on hand at particular moment.

Today, I realize how wrong I was.

Today, I have realized that there is a need to keep current issues aside for the time being and look beyond current issues.

परिवर्तन for me, then, means not to get overwhelmed by current or recent issues. Unless I delink current issues, I will not be in a position to address real basic issues beyond current issues.

## 9. TOUGH DAYS AHEAD

Since the last five decades, I have not been preparing myself for tough days ahead.

Today, I realize how wrong I was.

While I continue to be positive about future, it is to be realized that future environment will continue to be tough – could be tougher than what is at present. In fact, tough environment can give me an opportunity for sharpening myself.

This is the time for survival of fittest. Post this tough times, only fittest will

survive and whoever survives will have a launching pad available for rocketing their growth.

परिवर्तन for me, then, means I have to be tough enough to face challenges ahead.

## 10) TENDENCY TO PROCASTINATE

Since the last five decades I have been procrastinating. I have been used to postpone today's work to tomorrow though from childhood my grand mother was teaching me to do tomorrow's work today and today's work just now.

Today, I realize how wrong I was.

परिवर्तन for me, then, means taking oath that I will act now, I will act right away.

## CONCLUSION

परिवर्तन has given me an opportunity to have these paradigm life transforming shift in me. परिवर्तन for me then, does not mean changes at superficial level. परिवर्तन for me means paradigm changes or radical changes. परिवर्तन for me means Metamorphous. परिवर्तन for me means transformation, the way caterpillars (who is struggling to survive or who is not able to see beyond few leaves in front of it) transforms itself to a butterfly (who then is gliding above the ground and enjoying the beauty of whole earth).

I pray almighty God, " Give me strength to bring about radical परिवर्तन in me on sustainable basis so that it becomes part of my subconscious mind and become part of my personality and habit".

# Safety Shield Announcement

In order to achieve continual involvement in safety practices across all the project sites and for motivating the project teams, the top management has decided, in its 'Corporate Safety Committee Meeting' held in August 2013, to award CMD's Safety Shield across all the Business Sectors of Gammon. Accordingly the Safety Shield will be presented to the best three Projects among all the sectors based on the score from the proposed criteria. The assessment will be done based on the following four parameters:

- A. Statistics of Safety Performance  
- 200 marks (40% of score)
- B. Implementation of Safety programs  
- 175 marks (35% of score)
- C. Safety Training  
- 75 marks (15% of score)
- D. Quality of Reports / Response  
- 50 marks (10% of score)

Accordingly safety shield award criteria were announced. on 1st November 2013 while inaugurating the Safety Month programs of Gammon:

1. Winners Shield  
- Highest score (at least 90%)
2. 1st Runner up Shield  
- 2nd highest score (at least 80%)
3. 2nd Runner up Shield  
- 3rd Highest score (at least 70%)

The award scheme will be in operation

from the Financial Year 2013-14 onwards for which assessment will be done in the month of May –June 2014. The Shields will be presented appropriately, during the Safety month celebration in the month of November of the declaration year.

The four parameters are described below:

### A. Statistics of Safety Performance - 200 marks (40% of score)

This covers Absence of fatality, best Industrial Injury Factor (a combined measure of Frequency rate and Severity rate) along with reporting of Near Miss accident. It's weightage is 40%. This is expected to motivate site teams for achieving the final result of NIL injury across all the sectors.

### B. Implementation of Safety programs - 175 marks (35% of score)

These are proactive management actions and measures for preventing an injury or accident to achieve the criteria at 'A' above. In an established factory, the highest weightage is allotted to this category - rather than the reactive measurements using accident statistics. However, being a construction set up, we may not be able to follow factory pattern and accordingly weightage of accident statistics is kept at 40% and the management aspects under this category is 35% - second highest weightage.

### C. Safety Training - 75 marks (15% of score)

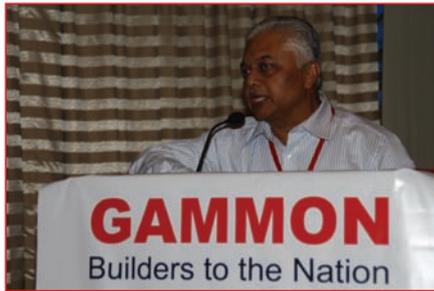
Safety training being an important pre-requisite to achieve the results at 'A', is given third highest weightage. It includes Induction training, Tool Box talks, 3Q meetings, Sub Contractor's training and other specific trainings like, Firefighting, First Aid, Height work etc. and accounts for 15 % weightage.

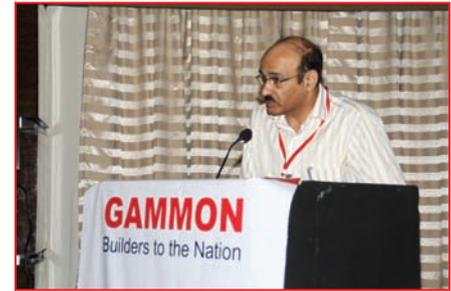
### D. Quality of Reports / Response - 50 marks (10% of score)

It is a measure aimed to improve quality of reporting and it's promptness for reporting to Corporate Safety as regards periodical reports and other feed backs from Projects are concerned. It will motivate site for providing periodical quality reports timely. This criteria has a weightage of 10%.

The basic document to be relied for monitoring the safety performance of the Project will be through the data obtained from the periodical reports from Projects to HO safety through Monthly Safety Performance Report (MSPR). The Monthly Safety Performance Report format has been appropriately revised and circulated covering all the parameters of the Safety Shield assessment.

It is expected that the active motivation and monitoring of Safety performance by the top management at Gammon will bring further feathers in the success cap of Gammon in implementing and practicing Safety in its construction works.





# RAIL - CUM - ROAD BRIDGE AT MUNGER



**Aavek Panja**  
Sr. Gen. Manager

## 1 Introduction

Conceived by East Central Railway in collaboration with NHAI, the 3.69 Km Rail-cum-Road Bridge over mighty River Ganga at Munger, Bihar is intended to provide an important link to this part of the country. This bridge will connect Khagaria town on North bank to Munger town on South bank. Work is awarded to BBJ Construction Ltd, Kolkata with Gammon as Railway approved Contractor. Gammon's Scope of Work includes supply, fabrication and erection of steel superstructure of 12 spans of 125m and deck concrete work. Though Gammon is a leading bridge Builder to the Nation with construction of several bridges to it's credit, fabrication and erection of 125m span welded Truss bridge with high quality and precision was a new challenge even for Gammon.

This article intends to provide an over view of the project execution which involved massive fabrication and erection works of the order of 22500 t.

## 2 Resources

Resources deployed for fabrication included 3 covered sheds – 2 nos 132m x 15m and 1 no 72m x 15m fitted with 5 nos 20 t EOT Cranes, 2 Goliath Cranes, 2 Crawler Cranes, 9 Hydra; 2 Trailors; 15 SAW M/c, 12 MIG M/c, 15 Radial Drill M/c etc. CNC cutting M/c; Milling M/c.

I-Girder Assembler and Straightener were deployed for faster and better quality fabrication. A Crawler Crane of 125 t Cap was used for feeding and two Derrick Cranes placed on top for erection. A large fleet of Generators and Compressors are used in fabrication as well as erection for power supply and riveting works.

## 3 Fabrication

Fabrication of this steel truss bridge components included welded Box section (Chord Members; Rakers, End Verticals, End Diagonals); Built Up I section in Diagonals, Verticals, Cross Girders, Stringers etc. & Gussets, Splice Plates, Bracings etc.



Steel PO is based on cutting plans as required for fabrication. Upon receipt at site, plates are color coded and stacked according to grade & size. After cutting, plates are straightened using 700 t Cap Reaction Frame and edges prepared before Fit Up for welding. For I girders, Fit Up is done using automated machine. For Box Girders, custom made Fixtures are used for Fit Up. Members are placed on different Fixtures for welding.



All weld are designed as fillet weld, generally 8mm to 12mm size, using SAW / GMAW except bottom cross girders where double V-butt weld of 25mm size is used. Welding is carried out in accordance with approved welding procedure and approved

welders by RDSO. Welding inspection done at site are Visual Inspection, DPT, Micro Etching & UT as required.

Distortion is generally controlled but may be observed in some cases. Correction has to be done manually by using jacks and custom made Reaction Frame and unequal loading.

Welded components are subjected to drilling. Considering the huge number of holes, Radial Drill Machines are used only for chord members, rakers and elevation gussets which demand highest accuracy and are made of plates of higher thickness. Components with lower thickness of plates and small splice plates etc are drilled using Magnetic Drill Machines. Jigs and Fixtures are used for drilling proper quality holes.

Once Drilling Operation is completed, marking is done for finishing job. Finishing of Chord Members is done using Milling Machine. For all other members, grind finish is done using template as per drawing and Angle grinders. All loose components, burrs etc. are also ground finish before inspection by Client.

There are three levels of Inspection. ECR inspects the components for all activities involved in fabrication. Plant Depot, Mughalsarai has been entrusted to carry on M&C (Mechanical & Chemical) Inspection and B&S (Bridge & Survey) Inspection.

All Bridge Components are required to be sandblasted, metalised and painted; three separate covered sheds with material handling facility are erected for sandblasting, metalising and painting works.

For faster erection, components are pre-assembled at yard to the maximum possible extent. Nomenclature is given on members and gusset plates for ease of identification. Riveting of assembled members is done in the yard itself to the maximum possible extent with proper planning so that erection is not



#### 4 Challenges in Fabrication

- Arranging Matching Steel.
- Managing huge quantity of different sizes of steel to control wastages
- 45mm & 56mm plates supplied with bends at ends.
- Scarcity of highly skilled workmen and competent Supervisors.
- Strict specified tolerance limit
- Frequent breakdown of Radial Drill Machines as 4,00,000 holes to be drilled for each span.
- Matching of holes during assembly of components
- Twist/Distortion in members

#### 5 Erection & Riveting

The Specification calls for acceptance of fabricated span only after Trial Assembly of one span on ground for confirmation of 'No Load Camber' and Dead Load Camber. However, E.C. Railway agreed to check Trial Assembly in situ which required erection of the first 125m span between P-30 and P-29 on trestle supports, alignment and leveling using jacks at nodes and checking of 'No Load Camber' by RDSO.



Once approved, the span was riveted and then trestle supports were removed so that the span acts as simply supported on both Piers. The Dead Load Camber profile was then checked by RDSO. Once approved, fabrication and erection of further spans were allowed. Jacking force at the nodes being as high as 100 t,

heavy-duty trestles were fabricated. Each trestle was supported on a group of 4 no Bored cast in situ piles 500mm and 800mm dia, 15m to 25m deep. This span was erected from below using 125 t Cap Crawler Crane with 70m Boom. Necessary earth filling was done in the river bed to provide access to this crane to substantially reduce 25m level difference between bed level and soffit of span so that all components to erect are within its reach.

Once completed, this span was used as Anchor Span and further spans are erected using cantilever method. Field joints are connected with temporary MS bolts and drifts for transfer of erection load. The bolts and drifts are later replaced by hot forged HT Rivets. Riveting entails driving of HT Rivets in the joint holes using pneumatic riveting hammer and dolley by skilled gang of Riveters. Pneumatic forge are used to heat the rivets to red hot, just enough to fill the holes under pressure. At inaccessible locations, HT Turned & Fitted bolts of grade 8.8 or HT Hex bolts of grade 8.7 are used. All loose rivets or defective rivets are to be replaced using gas cutting torch and a Buster Punch. Care is taken during replacement so that the parent material of the joint gusset/splice is not affected.

The Cantilever Erection Scheme involves strengthening of chord members in first 3 and last 3 panels to cater for erection stress developed during cantilevering which was done using higher grade of steel (approx. 135 t/span). Approx. 29 t of steel is used to strengthen permanent members of each span. Already erected span acts as Anchor Span and is connected to the new span using Links on top and buffer at bottom. Links are shortened as per design so that the cantilever span takes off at an angle of 0.79 degrees above and deflection at landing is reduced sufficiently to cater for jacking etc at next pier. Erection is done in two stages viz. forward erection (which involves cantilever erection of bare minimum members for formation of the truss so that the deflection is reduced due to less weight) and follow up erection (involving erection of balance members.) A Derrick Crane of Capacity 25 t at 16m & 20 t at 22m Radius is designed, fabricated and erected on top of Anchor Span for Forward erection of main members

forming truss of the next span. Another derrick crane with capacity of 16t at 22m is erected on top behind the Forward erection crane for erection of Follow Up members which also acts as counter weight against toppling during cantilevering. Additional kentledge of 70 t is placed on Anchor Span to resist toppling. Temporary Bearings are designed, fabricated and erected at the bearing pedestal under the first bottom chord suitable to provide an upward gradient of up to 1 degree.



Cantilevering Gadgets – Max force of 3000 t is developed at top (tension) and bottom (compression) of each truss during cantilevering which is transmitted to the Anchor Span. Tension is transmitted through Link system which consists of 2 sets Link members, 4 sets of Link bracings, 4 nos Link Props and 6 nos Link Pins.



The elevation gussets at U1 and U15 joints are designed to accommodate the Pin Plates that connect to the Link Members using Link Pins. Compression of 3000 t is transmitted through 2 nos Bearing Slabs with 1 Buffer Block for each truss. An upward slope of up to 1 degree is provided through 6 nos Temporary Bearings – 4 nos under Anchor Span and 2 nos under cantilever span. 14 nos Temporary Props are used to support top chord joints

(without diagonals only) during Crane movement. 3 sets of Hanging Devices are used to support Bottom Chords during erection. 2 sets of Receiving Brackets are erected on next pier prior to erection of 15th Panel as additional support which can be utilized for jacking during landing required for 1st Span Cantilevering-



- Once the Anchor Span is completed, Temporary bearings installed; span lowered and supported on temporary bearings after alignment.
- Forward erection crane is erected and front wheel placed on U2 joint of Anchor Span. Follow up erection crane is ready for erection.
- Components are fed from behind pier P30 by 125 t Cap crawler crane

on to 25 t Cap material bogie on rails laid on wooden sleepers supported on railway stringers throughout Anchor span. The feeding track is extended behind P30 for easy feeding.

- The wheels of the crane will be clamped to top chord to counter 1degree slope.
- Riveting of the preceding panels to be completed before the erection crane is moved forward,
- Temporary bottom lateral bracing will be provided in bottom bracing plan at 4 central panels for strengthening purpose.
- Secondary members are not erected in cantilever span to lower dead load

- Depending on seasons (high wind velocity), Site Engineer should check the wind pressure (max 50kg/m<sup>2</sup> i.e. wind velocity up to 28m/sec). If required crane is to be brought back in anticipation of storm.
- T. F. bolts at Buffer location should be regularly checked & tightened.
- Deflection to be monitored regularly during cantilevering.



## 6 SAFETY PRECAUTIONS

- Remove all unused materials & machinery from Cantilever Span.
- Before Erection crane is moved forward, riveting of the preceding panels to be completed.
- Follow up crane should be returned back to first few panels of Anchor span before Erection Crane crosses middle of Cantilever Span.

- Regular monitoring of Box members of last panel of Anchor Span and first panel of Cantilever span to assess unexpected compressive force/deformation.
- Regular monitoring of Free Temporary Bearings at L16-L116 of Anchor Span and L16-L116 of Cantilever Span towards movement due to load/temperature.

# EFFECTIVE COMMUNICATION FOR SUCCESSFUL PROJECT EXECUTION



**Bhavesh Thakkar**  
Dy. Manager

## 1. Preamble

The execution of Infrastructure Projects to be completed successfully under multiple constraints like Cost, Time, Scope etc. is quite challenging. Unlike factories, construction Projects have challenging dimensions due to its location, variety of type of projects, non-standard contracts, people and other parameters which are unique in nature. Its implementation at the corporate level even though can be achieved through effective Systems and Procedures, by assigning roles and

responsibilities and with suitable reporting structures but at Project level it largely depends on the quality and behavior of the people.

## 2. Objectives

The direct and indirect influence of internal and external Stakeholders whose perceptions, expectations and requirements vary from the Project Interest to Community Interest or Personal Interest which the Project Manager or Project Management Office (PMO) have to manage round the clock while simultaneously ensuring the Project Completion amidst meeting the following objectives:

- Manage challenges more effectively to improve productivity;
- Gather relevant right Information in right time and use the same fruitfully;

- Follow up with stakeholders to build strong relationship;
- Ability to influence, persuade and negotiate Project timelines, Costs etc.;
- Avoid conflicts and misunderstanding;
- Summarizing, recapping and dynamically strategizing subsequent steps;

The recent research shows that high performers create formal communication plan for nearly twice as many as low project performers and these plans are more than three times as effective

The ineffective Project Communication may result in gap in understanding the business benefits which partly may be due to the language used to deliver project-related information, which is often unclear and peppered with project management jargon.

Communication plays a vital role for any Project Manager as he is required to devote almost 95% of his time towards Communication either with internal Stakeholders or external Stakeholders towards the Project Success.

Communication Management has been considered as one of the key Knowledge Areas in Project Management Body of Knowledge (PMBOK) developed by Project Management Institute, USA.

As per PMBOK, "Communication Management typically includes Process that is required to ensure timely and appropriate Planning, Collection, Creation, Distribution, Storage, Retrieval, Management, Control, Monitoring and ultimate disposition of Project Information".

The above objectives cannot be attained merely by just theoretical knowhow but need experience and wider and wider exposure. Effective Communication creates a bridge between diverse stakeholders who have different cultural and organizational background, different levels of Intelligent Quotient, different levels of expertise and different perspectives and interests, which impact or have an influence upon the Project execution or success.

Bad Communication may lead to problems such as delay in message delivery, communications of information to wrong target group, or insufficient communication to the Stake holders and misunderstanding or misinterpretation of the message communicated.

**3. Communication Management**

Communication Management particularly in the Project Environment has three steps for implementation to have a fairly predictable outcome:

**3.1 Planing Communications:**

Project Team including Project Manager and PMO has different modes of communication medium as pictorially illustrated.

The communication plan may be analyzed

to facilitate the ease of use, consideration of Project Environment in terms of face to face or virtual Communication, language barrier, culture etc besides sensitivity and confidentiality of Information within the Project Participants.

**3.2 Exchange of Information:**

In every communication process, Sender and Receiver as two parties, have to exchange information through any of the above medium in the meaningful manner without any aberrations.

Encoding the messages into appropriately worded language by Sender and its decoding by Receiver to acknowledge and give feedback in clear, complete, and uncertain terms may surely involve 'Noise or Aberration' leading to miscommunication and thereby Project failures in certain cases to an extent. This is because senders and receivers include highly technical project team, unskilled labors, unpredictable politicians, shrewd local administrators, savvy suppliers and rigid project sponsors that too in the scenario of cultural indifferences and lack of background information. Hence, managing Communication is of utmost importance for the success of Project.

Let us say, Project Manager has 'n' no of potential Stakeholders or communication paths, then the total number of Communication channels or path required to be managed are  $n(n-1)/2$ . For example, If we have, say 20, internal and external Communication Channels like Project Director, Independent Engineer, Suppliers, PRW, Engineers, Store, Accounts etc., the number of communication channels, a project manager would be handling will be 190 channels ( $20*19/2$ ) which is unmanageable. Therefore, the key component of the Communication Planning would involve determining and limiting the communication Channels or Paths to its optimum level and effectively delegating the rest to competent deputies

An effective Project Communication Plan is the need of the hour at the initial stage of the Project itself and needs to be

regularly updated as per the requirements of the Contract.

**3.3 Managing Communications:**

Managing Communication involves the activities that are required for information to be created, distributed, received, acknowledged and understood. It may include but not limited to Performance Reports, Deliverable Status, Schedule Progress and Cost Incurred report. These are also influenced by the urgency and impact of the message, its method of delivery and level of Confidentiality.

**4. Methods of Communications:**

Communication methods generally can be of three types:

**a) Interactive Communication:**

This is one of the most efficient ways of ensuring the common understanding by all participants on specified topics and includes meetings, phone calls, instant messaging, Video Conferencing etc.,

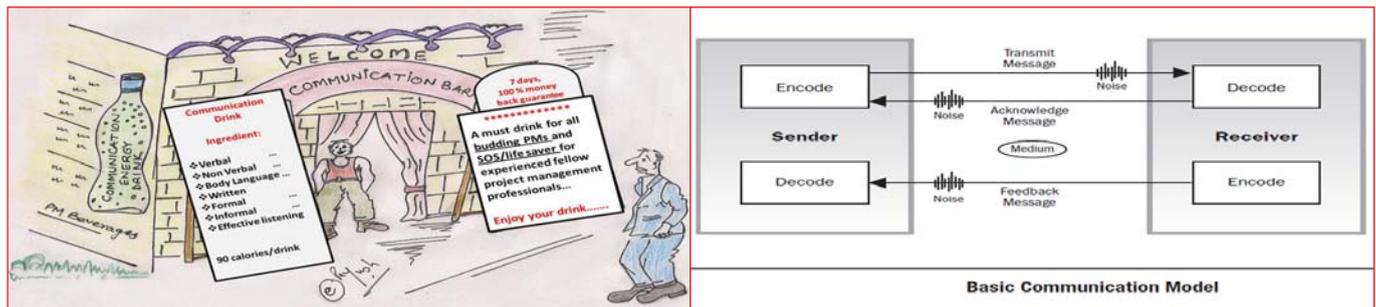
**b) Push Communication:**

This involves sending communication to target recipients who need to receive the information. Though this ensures the information is distributed, it does not ensure whether it actually reached or whether understood by the intended source. Push Communication includes letters, memos, reports, emails, faxes, voice mails, blogs, press releases etc.

**c) Pull Communication:**

This is used for very large volumes of Information or for very large audiences and requires the recipients to access the communication content at their own discretion. These methods include intranet sites, web sites, e-learning, Project Reports, other knowledge repositories etc. Selecting the right communication technique for the effective governance is the key take away due to the following scenario:

✓ Direct face to face meeting are something which may not always possible or desirable because of matrix based environment and geographically



dispersed teams and dependency of People and resources which is an unavoidable situation.

✓ On the other hand, relying totally on impersonal mode like E-mail Communication can become a source of unintended interpretation which can result in reduced feelings of personal connection.

**5. Frequency and Format of Communication:**

In order to have effective Communication, Project Manager requires a high level of self-awareness about his personal style of communication which influences one to one as well as Team Communication.

To Understand the Communication behavior especially within the Project Team, Johari Window Framework can be adopted to understand and improve self-awareness, Improving Communication, Interpersonal relationship, Team Development and Intergroup relationships from four different perspectives of People Interaction.

Window of Open matrix should be as big as possible which will ensure the Project to be executed free from Confusion, Conflicts, Misunderstanding. Challenge for Project Manager is to develop open area so that Individuals can build trust between themselves by disclosing information about Project Team Members. Besides, Team Members can learn about themselves and come to terms with business / Personal Issues with the help of feedback from others.

(Information / Message / Quality)	Known to Self	Not Known to Self
Known to Others	Open (Trust Flourishes)	Blind Spot (Self-Discovery, Possible for growth)
Not Known to Others	Closed (Confidential Information Stored)	Dark (Room for Potential)

**6. Controlled Communications:**

It is the process of Monitoring and Controlling Communication through the entire project lifecycle to ensure the information needs of the Project Stakeholders are met. The benefits to attain are optimal information flow among all Communication Participants at all times.

The Performance Baseline Measurement which not only integrates Scope, Schedule, Cost Parameters of the Project but also Technical and Quality Parameters is the

key deliverable output obtained from the Project Execution team which needs to be analyzed, compared and deviations measured for Management Control.

We in Gammon are still evolving the process of standardized communication in terms of Report Templates, adoption of new communication technologies, use of effective Project Software like Xpedion, Policies, Standards and Procedures that define Communication.

Controlled Communication also involves the Record Retention Policies along with Traceability along with appropriate Security Measures like viewing and transacting Rights on ERP or any other such software so that company's interests are protected

Effective and Controlled Communication will result in transparency in exchange of information, helps in both analyzing drawbacks and approval of change requests which otherwise could have lost if the process of Communication is not dealt appropriately.

**7. Conclusion:**

Project success, apart from other factors, is dependent upon communicating the right information to the appropriate stakeholders using clear and relevant language that resonates with the target group. Ultimately, more effective

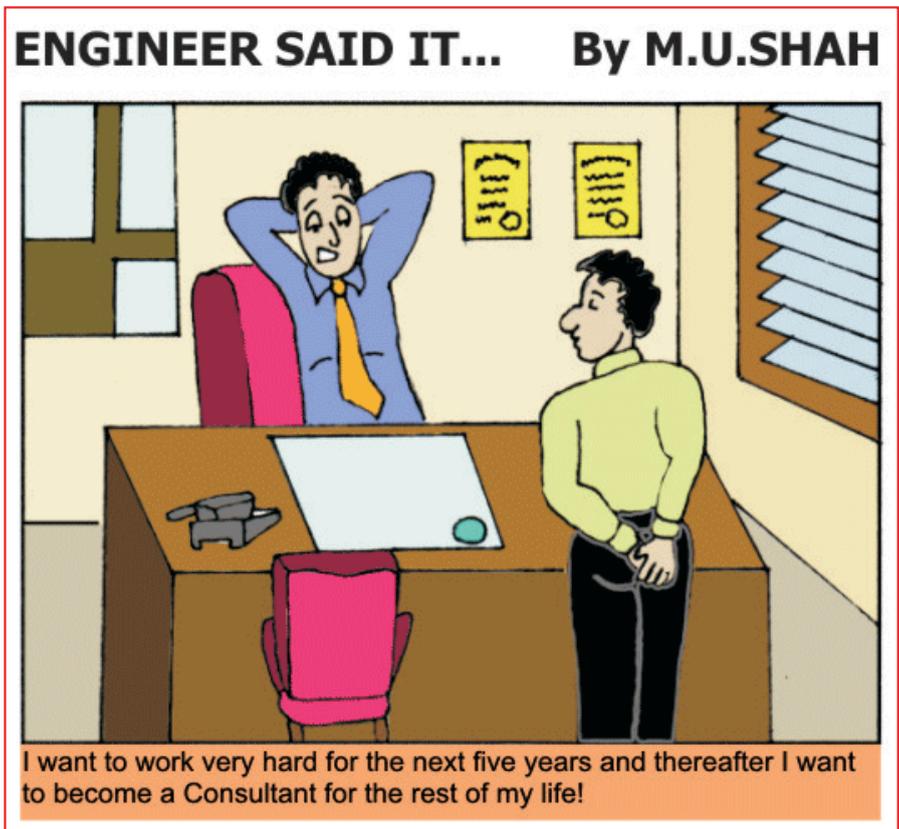
communications leads to improved project and program management, more successful projects, high performance, and fewer rupees at risk.

The way forward for the effective communication from Project which can lead to efficiencies and high performance can be attained with the follow steps:

- a) Close the Communication gap around Business Benefits
- b) Tailor Communication to different Stakeholder groups
- c) Acknowledge the value of Project Communication
- d) Use effective and Standardized Project Communication Practices

**8. Acknowledgements:**

- 1 A Guide to Project Management body of Knowledge – fifth Edition
- 2 PM Network Journal – Pulse of the Profession
- 3 Effective Communication for RCA and Understanding communication style by Pauline Aloysius
- 4 Synergy – PMI North India chapter Quarterly Magazine
- 5. Cartoon by Piyush Govil, VP – Communications, PMI – North India Chapter.





## SERIOUSLY , LAUGHTER IS THE BEST MEDICINE

### Leave Applications From Civil Engineers !!!

- M. U. Shah

Comes month of December and everybody would like to consume un-availed leave (which otherwise would lapse). Since in normal course, it is difficult to get leave sanctioned in the month of December, employees come out with innovative ideas to apply leave but creating, in the process, hilarious situation as Civil Engineers, though may be good in field works, but when it comes to written communication they leave much to be desired.

One Civil Engineer employee who wanted to perform the "mundan" ceremony ( first hair cut ) of his two-year old son wrote to his boss:

*"As I want to shave my son's head, please leave me for two days !"*

Another: Civil Engineer employee applied for leave as follows:

*"Since I have to go to my native village to sell my land along with my wife, please sanction me one-week leave !"*

Yet another Civil Engineer employee who wanted leave for his daughter's wedding wrote:

*"As I am marrying my daughter, please grant fifteen days leave !"*

Yet another Civil Engineer who was a father of two school-going children wrote:

*" As I am going for marriage, grant me one month leave !"*

Yet another Civil Engineer employee who wanted to take care of his ailing wife wrote:

*"My wife is suffering from sickness and as I am her only husband at home I may be granted leave !"*

One sick Civil Engineer wrote to his Project Manager:

*"As I am suffering from fever, please declare one-day holiday !"*

One Project Manager at site received a leave note reading:

*"As I am working at site I am suffering from headache. I request you to leave me today !"*

Yet another Project Manager at site received a leave note reading:

*"As my headache is paining , please grant me leave for the day !"*

Yet another Civil Engineer working in a Bridge Project who was reporting back from sick leave wrote to his Project Manager:

*" I will be resuming duty from Friday as I am well here and hope you are also in the same well !"*

One frustrated Civil Engineer who was denied Privilege Leave twice wrote to

his Project Manager boss:

*" I want to remind you that Privilege Leave means employee's privilege and not your as you are thinking and accordingly I am exercising my privilege and proceeding on my Privilege Leave"*

One Contracts Manager received an application for occupational hazard leave. He phoned the Project Manager and said, "We do not have this type of leave in our Company."

The Project Manger replied :

*" You better introduce Occupational Hazard Leave- my Blood Pressure has increased courtesy occupational hazard-creditors' unbearable pressure !"*

Yet another Civil Engineer employee wrote:

*"As my mother-in-law has expired and I am only one responsible for it, please grant me thirteen days leave !"*

Yet another Civil Engineer employee who received a call after he arrived in the office informing death of his relative, applied for leave as follows:

*"Since I've to go to the cremation ground at 1 pm and I may not return, please grant me casual leave !"*



## ROOT CAUSE ANALYSIS !!!

- M U SHAH

In Parivartan LSIP ( Large Scale Interactive Process) Meet two major concepts were introduced.

Root cause analysis and First Action Steps.

Not only Engineers but even Doctors use these concepts.

One Civil Engineer went to Doctor and said, " Doc, I have a chronic problem of frequent farting (i.e. passing wind). Many a times it becomes embarrassing for me."

Doctor replied, " I do understand. I will treat you for that but before that I must do Root cause Analysis."

Doctor started probing saying, " What is the frequency?"

He said, "Every fifteen minutes – in fact it happens with clock-work precision."

Doctor asked, " How about sound?"

Looking down he shyly replied, " Sir, you are asking embarrassing personal questions."

Doctor threatened, " Will you co-operate or should I obtain 360 degree feedback from your wife, your office colleagues and your fellow meeting participants?"

Yielding to this even more embarrassing threat, he replied; " Doc; it creates big sound- I don't know decibels but it is quite big sound."

Doctor asked, " What about odor?"

He said, " It is odorless- absolutely odorless ?

Doctor asked, " Are you sure?"

He replied, " Yah.. Doc, I am pretty sure."

This Root Cause Analysis continued for fifteen minutes.

All of a sudden, Doctor had to get up from his chair and had to open the door and he kept it open for few minutes ( it was a very small un-ventilated air-conditioned consulting room).

Doctor came back to his table and said, " Before I treat you for the ailment for which you have come, I must treat your nose!!!"

(What a clarity of thought on the part of Doctor-he was adamant that without Root Cause Analysis, he will not treat his patient and he was very clear in his mind about First Action Step)

# NEWS FLASH FROM PROJECTS

## 1. Important Functions

**1.1** Shri Nitish Kumar – Hon'ble Chief Minister of Bihar laid the Foundation stone for commencement of 11 Km long Elevated Road Project from AIIMS to Digha in Patna on October 1, 2013.



**1.2** Sri. Nitish Kumar – Hon'ble Chief Minister of Bihar laid the Foundation stone for commencement of M/s Geomillar's Water Treatment Plant for Patna City on November 11, 2013.



**1.3** Smt. Sheila Dixit – Hon'ble Chief Minister of Delhi Visited Signature Bridge Site and offered pooja before Base Erection of 154 m Tall Steel Pylon Erection which is one of the major milestone of the project on September 11, 2013.



## 2. SAFETY MONTH CELEBRATIONS

**2.1** The month of November 2013 was celebrated as "Safety Month" across Gammon Sites & HO with various promotional & motivational events & programmes.



**2.2** As a part of Safety Month Celebrations awareness programme and health check up for HIV / AIDS was conducted for all work force at Runawal Green Site at Mumbai



**2.3** As a part of Safety Month Celebrations Blood Donation Camp was conducted at Runawal Green Site at Mumbai. All the Gammon Staff & Work force actively participated in the programme and around 100 Units of Blood was donated.



## 3. Dussera & Diwali Celebrations at HO

Festival of Dussera & Diwali was celebrated at HO. Hon'ble CMD performed – 'Aayudh Pooja' (Offerings for Construction Equipment) on the occasion of Dussera & offered Laxmi Poojan on the occasion of Diwali.



## COMPANY NEWS

### THANKS TO ESTEEMED CUSTOMERS

Elevated Road form  
AIIMS to Digha, Bihar  
**Rs. 717.40 Crores**

Jawai Water Supply Project  
**Rs. 315.50 Crores**

Gulabpura - Uniara Road Project  
**Rs. 453.99 Crores**

Civil Works for VYASI H.E. Project  
**Rs. 317.04 Crores**

### WELCOME To GAMMON FAMILY



#### Vice President

Virendra Kumbhat

#### Project Director

Sunil Dayal

#### Sr. General Manager

Abhay Parulekar

#### Dy. General Manager

Anoop Pandey

#### Sr. Manager

MVV Satyanarayana

#### Manager

Naresh Mehta

Pratap Chouhan

Sankar Giri

Navin Sinha

Kul Bhushan Gupta

#### Dy. Manager

Gajendra Jangid

Dipali Dabhade

Satish Upadhyay

Senthil Chidambaranathan

Subodh Suman

Nagendra Kumar

S Jayakumar

### AWARDS



Dr. N. V. Nayak was conferred with **LIFETIME ACHIEVEMENT** Award for Contribution in Science and Technology of Concrete by R N Raikar Memorial and Dr. Suru Shah Symposium, in Mumbai



### Shrestha Suraksha Puraskar

Gammon was conferred with Prestigious the second highest Award for Safety in the Construction Sector category – **Shrestha Suraksha Puraskar** – for Project Site of **Natural Draft Cooling Tower project, UNO SUGEN, SURAT** at NSCI – **Safety Award Function held at New Delhi on October 4th 2013**

During the same function, Gammon India Limited was also conferred with **Prestigious Prashansa Patra** – for Project Site of **ISKCON Temple (Construction of Sri Chaitanya Chandrodaya Mandir and Indian Education & Cultural Centre) project in State of West Bengal** at NSCI

### LECTURES DELIVERED



#### Dr. N. V. Nayak

**October 8th, 25th 26th; 2013**

Delivered a lecture on "Engineering Innovations in Concrete and Pile Foundations" at Ambuja Knowledge Centre (In Association with IE - Nagpur Centre, ICI - Nagpur Chapter & NCCE) Nagpur, Nasik Aurangabad

**October 20; 2013**

Delivered lecture on Recent Advances in Piling during the workshop on "Emerging trends in construction materials & technology" at VJTI, Mumbai.

#### T. V. Sudhirkumar

November 11; 2013

Delivered a lecture on "Construction Safety Management" at annual Symposium of Tata Steel at Jamshedpur.

### GIL PARTICIPATION IN SEMINARS



#### Dr. N. V. Nayak

**December 20, 2013**

Participated in R. N. Raikar memorial International Conference & Dr. Suru Shah Symposium on "Advances in Science in Science & Technology of Concrete "at Mumbai.

#### Mr. M. V. Jatkar

**November 16, 2013**

Attended and Chaired IIBE Seminar on "Bridge Monitoring" at Mumbai

#### Mr. Girish Bhat

**October 9- 11; 2013**

Attended the Board Meeting of Chartered Institute of Management Accountants-(UK) at United Kingdom.



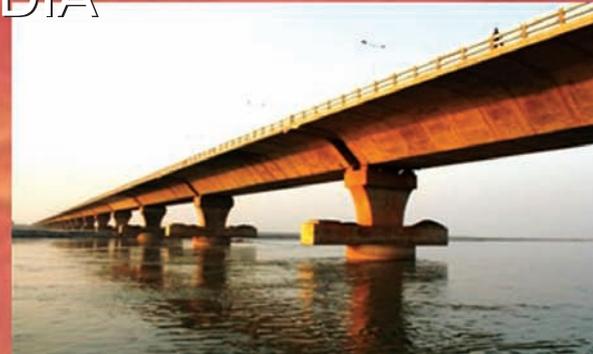


## **GAMMON** **BUILDERS TO THE NATION**

# Gammon's Concrete Contribution in Reinforcing Infrastructure in INDIA



Agra Makhanpur Expressway NH-2



Kosi Bridge NH-57



Mumbai- Nasik Expressway NH-3



Rajahmundry Expressway NH-16

## **Founded in 1919, We:**

- have built largest number of bridges in commonwealth
- developed one of the largest National/ State Highway networks in India
- own 23 infrastructure projects on PPP model including 14 road projects
- are in infrastructure encompassing
  - ◀ Transportation: Roads, Railways, Ports
  - ◀ Energy: Hydro, Thermal & Nuclear
  - ◀ Environmental: Water & Waste Management
  - ◀ Industrial Structures, Building & Utility Services

