

# AFCONS INSIGHT

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# A

## AWARDED

Three times last year for completing a hill-road project in national record time

# F

## FETCHED

Two out of five packages in the Longest Access Controlled Agra-Lucknow Expressway project

# C

## CONSECUTIVE

8th time winner of Most Admired Indian Companies Award from Construction World Magazine

# O

## ON

The rise by becoming the 2nd fastest growing construction company (Large Category) in India as per Construction World Award 2014 study. AFCONS was third in the study last year

# N

## NEW

Jobs worth ₹6750cr for the calendar year Jan-Dec 2014

# S

## 131 MILLION SAFE MAN HOURS

Clocked without any LTI across projects last year

But The Best Is Yet To Come...



**DMRC** has awarded an Appreciation Certificate for attaining Eight Million Safe Man Hours at DMRC CC15 on Janakpuri Botanical Garden Corridor of Line-8 on December 18, 2014

**MSRDC** has awarded an Appreciation Certificate for attaining One Million Safe Man Hours at Cable Stayed Railway Over Bridge, Nagpur on December 06, 2014

**Reliance Industries Limited** has awarded a 2nd runner Contractor Quality Performance Award for Jam-nagar project on November 28, 2014

**IRCON** has awarded an Appreciation Certificate for maintaining good standards in safety, health and environment on October 10, 2014



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### EDITORIAL

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From VC & MD's Desk

# Our Best is yet to come



Happy New Year to all of you. I hope you celebrated the start of 2015 in good spirits with family and friends. Now that we are a few days into the new year, let's look ahead and think about what this new year may bring us.

But before we start, let's look back at 2014 in what was a fulfilling year despite being in less than favourable circumstances sometimes. There were a few setbacks but, at the same time, we made some good progress as well. We were feted for our discipline in maintaining safety standards, for our skilful and before-time delivery of the Jammu-Udhampur Highway project by various institutions etc. We've been through many developments and, both internally and externally, we have made decent progress.

All these means there's still a lot of work ahead. We're still working in an economic downturn with little foreseeable improvement in the immediate future. In short, the current circumstances are all quite challenging to work in. But no matter what the circumstances we must not lose our focus: to be strong and be a complete EPC organisation that puts customer at the heart of everything we do. We must use our time wisely and move forward as decisively and swiftly as we can. This will be possible only through your dedication and teamwork. I encourage all of us in our decision making to evaluate not only what is best for our part of business, but also the potential impact on other parts of the organisation as well.

K Subrahmanian



# Rohtang Tunnel, A lifeline in the Himalayas

The loss of lives at Rohtang Pass each year highlights the hard lives of those who have to commute through the ‘death zone’ for sustenance. **Bivabasu Kumar** meets people from Lahaul Spiti district, to hear their stories, and finds out how the tunnel will become a lifeline

**F**or the people of Lahaul Spiti district the cold Himalayan winters are synonymous with house arrest. Heavy snow fall and howling gales cover roads with layers of thick ice sending life to a standstill. The winter months (November – May) seem like a long wait with very little to do outdoors. Families store up food, medicines and other supplies for the period and hope no one falls critically ill. Qualified doctors are few and far between, and since the road to Manali gets cut off by the treacherous and snow-clad Rohtang Pass, it becomes a virtual death trap.

This sets the context for the Rohtang Tunnel that will provide all-season connectivity between Lahaul Spiti and Manali. In fact, it will act as an alternate route to Leh, since the Manali-Leh Highway that traverses the Rohtang Pass, becomes inaccessible during winters. Once complete, the world’s longest motorable tunnel above 3000m will not only trigger a socio-economic boom in Lahaul (where the north face of the tunnel is situated), but also save its people from isolation.

The ambitious 8.8 km-long tunnel is being constructed by a joint venture team of Strabag AG and Afcons. The tun-

nel originates at Dhundi above the Solang Valley in Manali and slips into the belly of the Rohtang Pass to emerge near Sissu at Lahaul Valley. The Border Roads Organisation’s (BRO) initiative will not only ease the traffic moving towards Leh but also reduce the hours wasted in traffic jams. What is now an enduring six-hour drive to Lahaul Valley from Manali in tourist months will be completed in less than an hour’s time – 80 kilometres cut by less than half the distance.

“People of Lahaul Spiti remain cut off from mainland for six to seven months due to the Rohtang Pass. The tunnel is chiefly for the people of Himachal Pradesh so that Manali and Lahaul Spiti can be connected throughout the year. The tunnel, in the long run, will also become an alternate route to the strategically important Leh,” said BRO Chief Engineer for Rohtang Tunnel Project, Brigadier Manoj Kumar.

It’s a tough life in the mountains. Battered by snow and marooned on a valley filled with ice, people of Lahaul and nearby villages eagerly wait for summers to arrive. Despite the rich harvest every year local farmers fail to earn profitable returns.



Rohtang Tunnel, North Portal



"The Gods have given us fertile lands. But we have to sell the yield before winter every year. We make very little profit in the rush," said, Jagdish Kapoor Tholang, a villager from nearby Tholang village.

Suresh Kumar, who is the pradhan of Tandi village panchayat, some 30 kilometres from Sissu, explained how life becomes miserable in winters. "We pray for our lives as the cold digs in. Due to lack of transport and inhospitable terrain, we fail to shift critical patients to Manali. The sick in the valley suffer a slow death," Kumar said. The tunnel, the villagers feel, will give them the confidence to try and reach Manali in crisis. Though there are risks of avalanches on the way, the alter-

ver, the high altitude, remoteness of location and harsh climatic conditions make it a challenge to work here," said Rohtang Tunnel project manager, Sunil Tyagi.

The portal locations are surrounded by avalanche zones making operations extremely dangerous. There are combined 20 avalanche areas in both the tunnel portals. But logistics is the greatest challenge of working at such an altitude. The problem is most acute at the north portal.

"To get material at the north portal, be it equipment, supplies etc, via the Rohtang Pass is very challenging. There are frequent road blocks due to avalanche, rock fall, or traffic jams caused by tourists. The delivery just in time like



The circuitous route through Rohtang Pass makes logistics extremely difficult. Shifting equipment, supplies on this treacherous mountain road, clad in ice, is a huge risk to life and property. Lahaul Spiti district is cut off from Manali and mainland for six to seven months due to the Rohtang Pass (at 3978m) in winters. **(See backpage for more pics)**

nate route, will shield them from the dreaded Rohtang Pass.

Tunnelling at the best of times is a hazardous activity. Ever wondered about the challenges of constructing a tunnel 3000m above sea level? The job, probably, gets more complicated with the location being the Himalayas.

The Himalayas are amongst the youngest mountain ranges in the world. Due to its varied geology and significant changes in rock class, engineers had to resort to the conventional drill and blast methodology for the Rohtang Tunnel.

"The Himalayas are characterised by active folds and thrust zones. Moreo-

in other projects is just not possible," said tunnel manager (north portal), Thomas Riedel.

During tourist months 3000 to 4000 vehicles ply daily on the route to Rohtang Pass and Solang Valley. Since the roads are busy at day, materials have to be shifted at night.

The south portal has its own share of challenges too. There is heavy water ingress at about 110-120 litres per second with highly weathered and crushed rock, mixed with clay fillings, inside the tunnel.

"Ever since we started excavation, the rock conditions have been changing continuously. At north portal the rock

At north portal the rock condition has started degrading, which is affecting the work of the tunnel. The overburden is also high resulting in squeezing at some points. In south portal, there is heavy water ingress from nullahs over the tunnel. This is also impacting the work. Working conditions are extremely tough in this project. Be it monsoon or winter, the risk factor is always high. Keeping all these conditions in mind, Strabag & Afcons are doing a great job.

**Brigadier Manoj Kumar,**  
BRO Chief Engineer,  
Rohtang Tunnel

condition has started degrading, which is affecting the work of the tunnel. The overburden is also high resulting in squeezing at some points. In south portal, there is heavy water ingress from nullahs over the tunnel. This is also impacting the work," said brigadier Manoj Kumar.

The BRO chief engineer, however, exuded confidence in the progress and professionalism shown by the team of dedicated engineers. "Working conditions are extremely tough in this project. Be it monsoon or winter, the risk factor is always high. Keeping all these conditions in mind, Strabag & Afcons are doing a great job," he said.

Some of the most modern technologies are being used in the Rohtang Tunnel project. For the first time in India, the engineers are using a Rowa flyer system at the south portal which gives them the freedom to work at invert level considering the typical geometry of the tunnel. There is a unique heating system in the batching plant that keeps it working even in subzero conditions.

Unlike anywhere in India, there will be emergency exit points at every 500m inside the tunnel which will connect to an underground egress tunnel. This underground tunnel will act as an emergency evacuation passage during accidents. The Rohtang Tunnel promises a better future for the people of Lahaul Spiti. The new route will spread joy and end the social isolation that has stifled them for ages.



## News

### Handover ceremony and Load Out of HRD Process Platform



**1.** Load Out of HRD Process platform – Jacket at NPCC yard Abu Dhabi on November 06, 2014; **2.** Load Out of the HRD Process Platform was completed successfully on November 17, 2014 at PTSC Vietnam; **3.** Load Out and Handover ceremony of HRD Process Platform in Vietnam; **4.** AFCONS VC & MD Mr K Subrahmanian attends the Load Out and Handover ceremony of HRD Process Platform on November 29, 2014

## HSE

### Blood Donation Camp



**December 24:** A blood donation camp was organised by the HSE team at Afcons House, in Mumbai. Deepak Foundation's M/s. Anviksha Blood Bank made arrangements for blood collection while Dr P Thorat presided over the camp. A health screening of the donors was done by Dr Devang R Shah from Anviksha. Dr Devang presented a memento to VC & MD Mr K Subrahmanian for the novel initiative.



### Emergency Evacuation Drill

**October 08:** An emergency evacuation drill was conducted at Afcons House, in Mumbai to check the preparedness of the employees. Mr Ramakrishna Rao discussed precautionary measures in the face of potential disasters.



## News

### Bhoomi Puja

Bhoomi Puja was conducted at VTKN CAPEX UPGRADE PROJECT at Vopak-Kandla Site (2282) on December 10, 2014.



### New Project at Jaigarh

Afcons has been awarded a new project by H- Energy Gateway Private Limited for supply of Offshore plant and equipment and EPC Contract for LNG Import, storage and Regasification Terminal at Jaigarh, Maharashtra, in JV with Sener (Spain).

### First Aid Training

Basic First Aid training was conducted by Dr Vikas and Mr Bharat from Indian Red Cross Society at Head Office on December 30, 2014.

## New Joinee



**Shrikant D Karmalkar** has joined as General Manager-HR at Head Office. He has an overall experience of 27 years.

### Samir Kumar Modak

has joined as Jt General Manager-Projects at Head Office in BU - Hydro & Tunnel. He has an overall experience of 34 years.



## Inauguration of Agra-Lucknow Expressway

Former UP Chief Minister and Samajwadi Party President Mulayam Singh Yadav laid the foundation of the proposed 302 km Agra-Lucknow Expressway, in Lucknow on November 23, 2014. The project once complete would be the longest access controlled expressway in the country and would reduce driving time between Lucknow and Agra to just four hours. The expressway will be built in five packages. AFCONS will work on Package II (Firozabad to Etawah) and Package IV (Kannauj to Unnao).



AFCONS Deputy Managing Director Mr S Paramasivan, at the ceremony, in Lucknow

## HR CORNER

### WHOLE WELLNESS WORKSHOPS

#### Bone Densitometry Evaluation: Jamnagar, Delhi, CMRL site

Bone Densitometry Evaluation test was carried out for employees at Jamnagar, Delhi and CMRL site. The test is carried out to assess the level of osteoporosis in the bones, and accordingly take necessary steps for its corrections.



Bone Densitometry Evaluation test at Delhi site

#### Spirometry ( Lung Function Test ) ; CMRL site

Spirometry (Lung function Test) was conducted for employees at CMRL site (package 1 and Package 5) from 8th to 11th Dec 2014. The test helps to find out the lung capacity of the individual. The Spirometer gives an indication of lung power and gives details about breathing capacity. This test is also a good indicator about the lung condition for the people who are exposed to dust, cement and chemicals for a longer period of time. A Spirometry Test is a more sensitive & sophisticated test which detects the signs of asthma & COPD (Chronic Obstructive Pulmonary Disease) early.

#### Health Talk and Health Awareness Program@ HO

General Health Check up camp was organised for employees at HO by Kokilaben Dhirubhai Ambani Hospital. The following tests were carried out: Blood Pressure, Random Blood Sugar, BMI, ECG.

A health talk on Heart Related Problems was organised as part of the Health program.

### FIRST TIME MANAGER TRAINING

II Batch of First Time Manager training program was scheduled at HO from 13th to 14th Oct 2014. The 2 days program is designed for employees promoted to managerial position. The program is designed to develop the knowledge and skills necessary to manage individuals and teams to enhance performance.

The training was conducted by Mr. Sachin Karve & was attended by 23 employees from sites & HO. On the final day session, an interactive session was conducted with Mr. S. Paramasivan (Dy. Managing Director), where key learning from the program were discussed. Mr. S. Paramasivan addressed the participants on company's growth and goals.

### BUSINESS WRITING SKILLS WORKSHOP

Workshop on Business Writing Skills was organised at Afcons HO from 17th to 18th November 2014. Total 24 participants attended the workshop, conducted by Mr. Vincent D'Silva. The objective of the training was to help participants sharpen the written communication, presenting the basic rules of clear and persuasive writing in a well organized and easy to use manner.

### CONTRACT MANAGEMENT WORKSHOP AT CMRL SITE

A 2 days workshop on Contract Management was scheduled at CMRL site from 27th to 28th Oct 2014. The workshop was conducted by Dr. Ajit Patwardhan and attended by around 25 employees from CMRL site.

### PRIMAVERA TRAINING AT AFCONS HO

3 days training on Primavera was scheduled at Afcons HO from 9th to 11th Dec 2014, the

training was attended by 24 employees at HO. The objective of the training was to familiarize the participants with the primavera version of planning software and how to utilize the software for optimum planning & scheduling and resource loading of the project.

### ENGINE & HYDRAULICS ( BASIC ) TRAINING AT BUTIBORI

Training program on Engine and Hydraulics was conducted at Butibori. Total 14 engineers from various sites attended the training. Topics covered are as under:

- Theory & practical
- Introduction to Cummins engine
- Introduction to Hydraulics
- Working Principles/components
- Sub-Assembly/Major Assembly & disassembly
- Maintenance/Trouble Shooting
- Testing of engines
- Basic of Electricals
- Introduction of Komatsu Excavator (PC-200)



Engine & Hydraulics ( Basic ) Training at Butibori

### PRODUCTIVITY MANAGEMENT TRAINING

Training on Productivity Management was conducted at Butibori workshop with the objective of training our engineers for better utilization of our equipments. The training was conducted by Mr. Mihir Mishra and Mr. Srinivas K. The topics covered in the training were: Productivity Management, Equipment Budget, and Monitoring of Equipment.



## MOST ADMIRED COMPANY



AFCONS received the Most Admired Companies Award from Construction World Magazine for the eighth year in succession. AFCONS VC & MD Mr K Subrahmanian (left) recieved the award at a function in Mumbai.



## 2nd FASTEST GROWING COMPANY

AFCONS got the award for Second Fastest Growing Construction Company (Large Category) from Construction World Magazine. Mr K Subrahmanian recieved the award.



## EPC World Award 2014

AFCONS was honoured for "Outstanding Contribution in Roads & Highways" - EPC Category for the Jammu-Udhampur Highway Project by EPC World Media Group.





## ROHTANG TUNNEL

1. The SAJV site office at North Portal, situated in Lahaul Valley, near Sissu
2. The tunnel portal at Lahaul
3. The SAJV team at South Portal, at Dhundi, in Manali
4. Wind speeds reach upto 80kph in the Lahaul Valley where the North Portal camp is situated



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