



# CLEAR AUDIO IN HARSH CONDITIONS

MOTOTRBO™ ENSURES WORKERS CAN COMMUNICATE CLEARLY AT THE UK'S LARGEST CEMENT WORKS



## HOPE CONSTRUCTION MATERIALS

Hope Construction Materials is Britain's leading independent supplier of cement, concrete, aggregates and asphalt. Its cement business is based at the UK's largest cement plant at Hope, Derbyshire, producing up to 1.5 million tonnes of cement products each year.

Hope Cement has recently replaced its analogue two-way radios with a digital MOTOTRBO system. Working with its communications partner DCRS, Hope Cement based its decision to use MOTOTRBO on several factors. The radios deliver clear and loud audio in a challenging environment (the site is in a rugged and hilly part of Derbyshire); the system can easily accommodate new users; and talk groups can be simply created for effective team communications. Hope Cement has also deployed MOTOTRBO's Digital Telephone Interconnect system so that supervisors in the office can connect with radios used by production and maintenance teams. As well as improving communications, the system is enhancing safety: the radios include lone worker and man-down functions to help protect staff, and an override channel enables an "all call" to be made to instigate emergency procedures if an incident occurs. The site presents some challenging conditions including quarry and manufacturing areas, but the radios' robust construction, high IP rating and ATEX compliance ensure continuing operation. In short, MOTOTRBO provides the reliable, dependable communications that are essential to ensure safe, efficient and productive operations in this demanding 24/7 environment.

### CUSTOMER PROFILE

#### Organisation

Hope Construction Materials

#### Location

UK

#### Industry

Construction materials (cement, aggregates, concrete and asphalt)

#### Partner

DCRS Ltd

#### Motorola Solutions products

- 3 DR 3000 repeaters (2 in Capacity Plus mode and 1 in analogue mode)
- Digital Telephone Interconnect
- 50 DP 3400 and DP 3600 portable radios
- 14 DP4801Ex ATEX portable radios

#### Applications

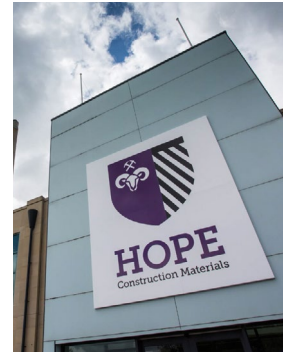
Individual and group communications with telephony interconnection across this extensive cement production site with man-down and lone worker functionality

## CASE STUDY

### HOPE CONSTRUCTION MATERIALS

**“Our site is a demanding place for radio technology: we’re in the middle of a very rural and hilly part of Derbyshire - the surroundings can impede RF performance, and background equipment noise is ever present. Working with DCRS we looked at the options to replace our old analogue radios and MOTOTRBO stood out as the best solution. The radios are tough and rugged to ensure continuous operation, the audio quality is excellent and we’re guaranteed coverage across the site with the capability to support a large number of talk groups. We also have the option to expand the system at busy times by hiring in additional complementary radio equipment from DCRS. With safety features including man down and override emergency calling, MOTOTRBO helps ensure the safe, efficient and productive operation of the team on our site.”**

Mark Bramley, Electrical Engineer, Hope Construction Materials



## CHALLENGE

Hope Cement was experiencing problems with its previous fleet of analogue radios. The system didn't have enough channels to support the desired number of talk groups. Also, the radios were ageing and, as they are used outside in all weathers, they were subject to a high degree of failure. The company commenced the search for a new professional mobile radio system.

## SOLUTION

Working with two-way radio specialist DCRS, Hope Cement selected a MOTOTRBO digital two-way radio system. The decision was based on the combination of MOTOTRBO's exceptional audio performance, greater capacity, reliability and integrated safety features.

DCRS conducted a detailed site survey to locate the best position for the antenna system and ensure site-wide coverage. It has installed three DR 3000 repeaters running the intelligent Capacity Plus software. Capacity Plus is a single-site digital trunking solution that extends the performance of MOTOTRBO to support up to 1,200 users – many more than required by Hope Cement. It also offers greater coverage and three times the capacity of Hope Cement's analogue network. DCRS has set up eight talk groups to support discrete teams who can communicate clearly thanks to MOTOTRBO's advanced noise cancellation technology.

The radios are in constant use seven days a week and 24 hours a day. And given that they must operate in demanding conditions – users are outside for prolonged periods – Hope Cement selected radios certified with IP57/67 ratings to ensure protection from particles and water ingress. The models include 50 DP 3400 and DP 3600 and 14 ATEX DP4800 mobile radios.

As well as communications between users and talk groups, supervisors also wanted to call teams using their mobile phones. DCRS installed MOTOTRBO's Digital Telephone Interconnect feature – a simple upgrade requiring a software revision for the radios and the connection of an analogue phone patch box to the repeaters.

On the safety front, the radios support lone worker and man-down features and have a dedicated emergency button; when pressed, a call is made to central dispatch so help can be sent quickly. And an override channel can send a message to all users at once.

Another key reason behind Hope Cement's decision to install MOTOTRBO was the fact that it can support the phased transition from analogue to digital radios. DCRS set one of the Capacity Plus channels in analogue mode and programmed the analogue channel into the MOTOTRBO radios to support seamless calling between the old analogue and new digital devices. The configuration enabled Hope Cement to add new MOTOTRBO radios as budget permitted.

## BENEFITS

Hope Cement has a high-capacity digital two-way radio system providing clear voice communications across the whole site – against constant background noise. As well as group and individual calls, supervisors and teams can communicate seamlessly between radios and mobile phones. Engineered tough, and designed to cope with challenging industrial environments and harsh weather, the MOTOTRBO radios ensure reliable operation day in, day out while the man-down functionality and override emergency calling feature help enhance site team's safety.

With the option to add data services in future, Hope Cement has the reliable, high-performance and scalable two-way radio platform to support safe and effective operations well into the future.

### Key Benefits

- **Clear communications:** Clear voice calls between individuals and groups against a noisy backdrop
- **Telephone interconnection:** Supervisors can connect via the telephones with production and maintenance teams' two-way radios
- **Enhanced safety:** Man-down and override messages improve site safety
- **Reliability:** High IP rating of radios ensures reliable, continuous operation day in, day out in all weathers
- **ATEX Certified:** enhanced safety for challenging zones within the site.
- **Phased introduction:** New radios programmed to link to legacy analogue radios to enable phased transition to new system

For more information on how Motorola Solutions' MOTOTRBO™ digital two-way radio system can improve the efficiency and safety of your teams, please visit us on the web at [www.motorolasolutions.com/mototrbo](http://www.motorolasolutions.com/mototrbo) or access our global contact directory at [www.motorolasolutions.com/contactus](http://www.motorolasolutions.com/contactus)

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