ANTHONY'S INTEGRATION

INTO THE JOB OF OVERSIZED DUMP TRUCK OPERATOR

DI-973-2

EXAMPLE OF A WORKER INTEGRATION PROCESS





Institut de recherche Robert-Sauvé en santé et en sécurité du travail



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SOURCES

Ledoux, É., Beaugrand, S., Jolly, C., Ouellet, S. and Fournier, P-S. (2015). Les conditions pour une intégration sécuritaire au métier — Un regard sur le secteur minier Québécois (Rapport R-898), Montréal, IRSST, 139 pages (in French only).

Ledoux, É., Beaugrand, S. (2017). Safe Integration of New Workers in Mining Companies — Self-Diagnostic Tool (DI-973-1), Montréal, IRSST, 28 pages.

COMMENTS

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In the interests of readability, use of the masculine gender in this document includes persons of both sexes.

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EXAMPLE OF A WORKER INTEGRATION PROCESS

This example illustrates the various steps in the worker integration process and the roles played by the key actors. It gives a concrete picture of the content of the document titled *Safe Integration of New Workers in Mining Companies – Self-Diagnostic Tool*, available on the IRSST's Web site.

This fictitious example was developed on the basis of observations in mines. While the process illustrated includes a number of factors conducive to integration, it should not be considered perfect.

Consult the self-diagnostic tool on the safe integration of new workers at **irsst.qc.ca/integrationtravailleurs-mines**.

THE HIRING CONTEXT

- Anthony is 35 years old. He has a secondary school diploma (DES) and a diploma of vocational studies (DEP) in truck transport. After working in a variety of trades, he spent 10 years driving long-haul tractor trailers.
- He has just been hired at the mine as a mining equipment operator. He will be driving an oversized dump truck at this open-pit mine.
- The mine, which was recently bought by a new company, operates around-the-clock.
- Anthony was hired following the recent retirement of two highly experienced employees who held jobs as loader and bulldozer operators. Other employees who drove trucks applied and obtained the vacant jobs, freeing up their own jobs in the process.

Food for thought...

- The importance of an integration process for new employees who have relevant experience should not be overlooked or neglected.
- Changes resulting from the purchase of one company by another can generate training needs for all employees, for example, to bring their skills up to the level of the OHS requirements set by the new administration.
- A few departures can trigger a cascade of training needs.



ORIENTATION

- Anthony starts his first day of work at the mine today at 7 a.m. The planned orientation program will last two days.
- When he enters the mine, a human resources (HR) coordinator explains his employment contract, the duration of his probationary period, and his employee benefits, and then informs him of the agenda planned for his orientation. He meets the mine manager and a union representative, watches a video on the company, and is given a tour of the buildings.
- An OHS counsellor explains the important rules to follow to ensure his safety in the mine (for example, regarding emergency evacuations, blasting, and traffic). The counsellor has him watch some safety videos and gives him a binder of procedures that must be followed on the site and in his work. He also gives him a few hours to read the procedures, then discusses them with him and answers his questions. Also, a trainer gives him a few short training sessions on various topics such as risk assessment, conveyor safety, and electrical hazards. After each step, Anthony signs the register to confirm that he has covered the required content.

Food for thought...

Orientation is a time when new workers are given a lot of new information, much of it designed to meet compliance needs.

• When the supervisor is free, he meets with Anthony, explains how the work in the mine is organized, and gives him a tour of the mine, drawing his attention to any aspects that pose risks (such as dangerous rocks). He also introduces him to the other workers.





ACCLIMATIZATION

• At the end of Anthony's second day, the human resources counsellor tells him that the trainer will only be available in two days to start his training.

Food for thought...

Plans change frequently, as trainers sometimes have to fill in to help meet production needs.

- While waiting, Anthony will spend the next day with Bernie, a long-standing employee who has held numerous jobs and who is responsible for inspecting and removing any dangerous rocks.
- The supervisor has advised Bernie that he will be mentoring Anthony for the day, that he will have a van to use, and that he will be able to spend a few hours exclusively on giving Anthony a clearer picture of the mine's operations.





THEORETICAL AND TECHNICAL TRAINING

- Anthony then meets the trainer, a retired and experienced equipment operator who has been called back to work by the mine.
- The trainer begins by explaining the mechanical components of the dump truck and the recommended ways to use the truck's different systems, such as the brakes. He also gives theoretical explanations of the conditions for safe truck use and the driving manoeuvers required to position the vehicle properly during loading.

Food for thought...

A lot of effort and resources are devoted to
theoretical and technical training. This is sometimes less the case when it comes to task-related training.

• Anthony passes the theoretical evaluation, which takes the form of multiple-choice questions.

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TASK-RELATED TRAINING

• Anthony is then paired with a mentor, Charlie, an experienced dump truck operator who has volunteered to teach him the trade. Charlie was advised of the arrangement the day before by his supervisor. He has trained other truck drivers in the past.

Food for thought...

Task-related training is a job in itself. This crucial role
filled by experienced workers is not always given the full recognition it deserves.

- The training is done on a medium dump truck, which is used in production. The mine aims for average production even during training.
- Charlie uses a list of points to be covered in training, to guide the teaching/learning process. The list was drawn up by a committee composed of some of the mine's experienced workers.
- They perform the pre-departure truck inspection and complete the inspection checklist together. Charlie takes the opportunity to talk about problems Anthony might run into when operating the truck and what he should do in these cases (for example, stop immediately or call the mechanic).
- Charlie then drives the truck on a part of the mine site well away from the production area, where the ground is flat. He shows Anthony how to operate the truck, then lets him take the wheel while he takes the passenger seat.
- They then start participating in production operations and perform various manoeuvers: loading, transporting materials on slopes, unloading the waste rock (non-ore material) at the edge of a former pit, unloading the ore at the crusher, and unloading the ore in the temporary storage zones.

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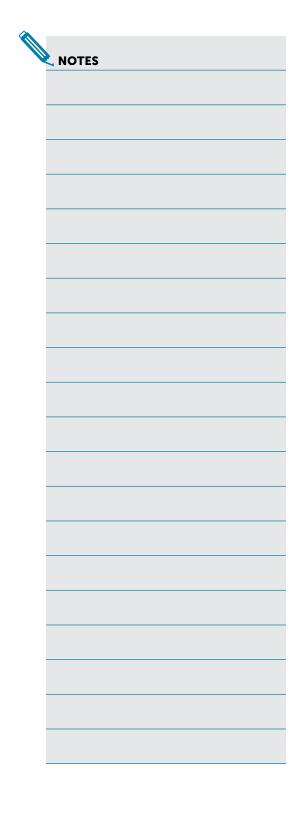
TASK-RELATED TRAINING (CONTINUED)

- As Charlie shows Anthony the work, he introduces the many different procedures involved, as well as various tricks of the trade and reference points he himself uses in his work. He also recounts anecdotes and incidents that he has found upsetting in the past, so as to make Anthony aware of the hazards.
- Anthony doesn't remember the required number of feet or metres that must be left between trucks, even though he read about it during orientation. The recent change in ownership has meant that new procedures have been introduced. The documents have not been updated yet, and even Charlie does not know the new mandatory distance. He also has a hard time answering Anthony's question about how to estimate the distance (what reference points to use) and if the new procedures apply in all situations.
- At first, Anthony is overwhelmed by the size of the equipment and the blind spots, particularly on the right side. It's hard to estimate distances when backing up, but also when moving forward if there is an obstacle on the right side, such as when he is going up the ramp and passes another truck and there is a small rocky wall on his right.
- When approaching the edge of the pit in reverse, Anthony is nervous, particularly because he has a hard time assessing the distances. The mentor and the bulldozer operator help him to position himself correctly.

Food for thought...

Entry-level jobs are more complex than they seem.

• Anthony is also aware of the risk of a tire blowout if he drives over sharp rocks. He is very worried about the impact this could have on production and on the very high costs of tire replacement.





TASK-RELATED TRAINING (CONTINUED)

- The radio airwaves are overloaded during the day, making communication very difficult. Anthony learns that in his work team, the dump truck drivers and loader operators try to minimize their radio contacts: when the loader is immobile with the bucket raised, this means the truck can approach for loading. Also, the operators communicate by looks, gestures, and honking their horns.
- He learns to coordinate his work with that of his fellow team members: the bulldozer operator, the loader operators, the grader operator, other truck drivers, and the crusher operator.
- He gradually learns to recognize the dangers as he approaches the pit (cracks, and rocks that are breaking loose and destroying part of the ridge of fill at the edge of the pit, etc.).
- His previous truck driving experience is evident because he controls many of the vehicle's various functions easily. He wants to show his abilities, not only to his supervisors, but also to his fellow team members. Even so, he says he's a little afraid and has some difficulties when backing up.
- After the second day, Charlie feels that all the points on the list have been covered and that Anthony meets the requirements. The team members have also told Charlie that they appreciate Anthony's safety-conscious attitude.

Food for thought...

Some experienced workers refuse to participate in task-related training because they are afraid of being held responsible in the event of accidents.

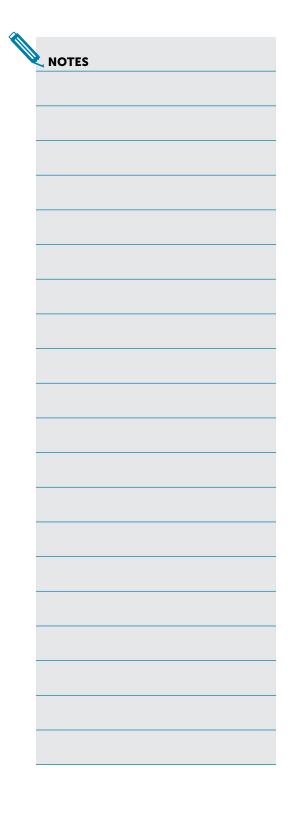
• Before giving the trainer the green light to proceed with Anthony's evaluation, Charlie checks with Anthony to make sure he doesn't feel the need for more training.





EVALUATION

- A few days after the end of his task-related training, Anthony is called in for his evaluation.
- The trainer begins by having him do a written test. Anthony is bothered by the multiple-choice questions and gets a few of them wrong. When he does the practical test, which consists of performing the work requested while also obeying the safety procedures, the trainer sees that Anthony applies properly what he has been taught, and that his answers to the theoretical questions did not provide an accurate evaluation.
- Anthony passes his evaluation. The trainer will not have to offer him additional training as was necessary with another candidate.



10



STARTING TO WORK AUTONOMOUSLY AS A MEMBER OF HIS TEAM

- Anthony begins his job as part of Team B, whose members he doesn't know well. His team is currently working the day shift.
- Anthony's new supervisor assigns him a medium dump truck with characteristics similar to those of the truck he used during training.
- The team members, whom he met very briefly, take into account the fact that he is new.
- The loader operator avoids loading Anthony's truck with big rocks that might make the truck more unstable, particularly when driving up the ramp. He gradually adjusts the load as he sees that Anthony has control of his truck.

Food for thought...

The work team adjusts the conditions to allow the new worker to experience the more difficult situations gradually.

- Somewhat fearful, Anthony dumps his load too far away from the edge of the pit, which means extra work for the bulldozer operator. The operator takes the time to guide him through the manoeuvers (Anthony has to learn to trust his co-workers).
- After making a few trips, Anthony realizes that the members of this work team do not all communicate with each other in the same way and that the loader operator has different preferences regarding the positioning of the truck during loading. However, not all these rules are clear to him, so he has no choice but to ask someone to explain them to him during the break.

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STARTING TO WORK AUTONOMOUSLY AS A MEMBER OF HIS TEAM (CONTINUED)

• For the past few weeks, the team has been working with a reduced number of operators. While the maximum speed limit for the trucks is low, the team has been working tirelessly to try to compensate for the shortage of workers and is extremely proud of its accomplishment. Even though Anthony knows that an average number of loads is expected for each operator per day, he wants to keep up with the work pace of his co-workers, who do more than the average.

Food for thought...

Team members often help new workers and keep aneye out for them, but they can also place pressure on new workers unintentionally.

 After a few days of rest, Anthony and his team work the evening shift. He then encounters several new challenges, such as the glare of the worksite lights in the loading zone, reference points that are no longer visible, different communication codes, and the use of dipped-beam headlights. Fortunately, he can use the radio more often (it is not as overloaded at night) to ask for help when positioning his truck.

Food for thought...

New situations mean having to learn new things and needing extra time to adapt.

• The stress generated by these new working conditions in fact keeps him constantly on his toes. Even though he's exhausted by the end of his shift, he doesn't experience the sleepiness that plagues operators during the early morning hours and that his co-workers warned him about.

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STARTING TO WORK AUTONOMOUSLY AS A MEMBER OF HIS TEAM (CONTINUED)

• One evening, when getting out of his truck to go on break, Anthony steps on a rock and hurts his ankle. He decides not to mention anything and is counting on his next days off to recover. Because he's still in his probationary period, he's afraid it will lower his chances of being formally hired and his team members' view of him.

Food for thought...

New workers avoid mentioning situations that might tarnish their record.

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