

Introducing the Social Incident Frequency Rate

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Using metrics like the Environmental Incident Frequency Rate (EIFR) and the Social Incident Frequency Rate (SIFR) has the potential to improve the project delivery especially for heavy construction and resource development projects. The concepts of EIFR and SIFR look to build on the huge positive impact of safety metrics on project delivery to improve sustainability on heavy construction and resource development projects by adapting safety metrics for environmental and social performance?

It is easy to argue that the project management metric with the biggest impact on project sustainability is the Total Recordable Incident Frequency Rate (TRIFR) that has changed construction projects from counting deaths per project to striving for zero harm.

A number of firms have started to use a comparable metric, the Environmental Incident Frequency Rate (EIFR) in order to track and create continuous improvement with respect to environmental performance. The Environmental Incident Frequency Rate (EIFR) has been defined as the number of 'recordable' environmental incidents per 200,000 hours worked.

The definitions are not fully developed but a recordable environmental incident could include significant incidents relating to the environment and could include:

- a reportable spill/release,
- a release into water,
- a release of air pollutants at levels above allowable, permitted levels,
- a legitimate external complaint about the environment (i.e. noise/dust), or
- any fine or non-compliance finding by a regulatory agency

There are a number of organizations that currently or historically have used EIFR to track environmental performance including Amec Foster Wheeler, Rio Tinto and other mining companies. Since EIFR is not an established metric, it will be important to refine the metric over time as we learn from project experience and there is a better understanding of what constitutes a 'recordable' incident in environmental terms.

The next logical step in developing sustainability metrics for projects is to examine the concept of a Social Incident Frequency Rate (SIFR). The Social Incident Frequency Rate would be defined as the number of 'recordable' social incidents per 200,000 hours worked on a site or construction project. The SIFR would provide a measure of social performance that would allow companies to track social impact compared to the volume of our work activities and evaluate teams and contractors to assess best practices and areas for improvement.

Some 'recordable' social incidents that could be included in the SIFR metric could include:

- a legitimate stakeholder complaint,
- a report or complaint of discrimination or harassment by an employee,
- a crime by an employee and/or contractor either on site or in the community,
- a community disruption (lack of services or road closures),
- conflicts with community members,
- negative press coverage,
- traffic accidents, or
- property damage.

The initial concepts for the SIFR were developed for a new iron ore mine that was being developed in northern Canada but a drop in iron ore prices has put the project on hold so the SIFR metric has never been tested on a real project. The metric will need to be tested on different types of projects in different regions but it will hopefully provide a comparable metric for tracking social performance as a project progresses and ensuring that there is improved performance based on experience and lessons learned.

Given the complexity and variability of environmental and social issues, it may seem difficult to envision how all of the various types of incidents would get included in a social or environmental IFR or to ensure that each project and each contractor will be evaluated on an apples-to-apples basis. But I remember the early days of formal safety programs which had the same confusion that existed over definitions and arguments over what was recordable. Over time safety professionals and project managers used their experience and best judgement to understand difficult questions like; what is the definition of a lost time injury? How do you categorize an incident involving exposure to a chronic health compound like asbestos? How are repetitive strain injuries included in safety statistics?

Both environmental and social IRFs face the same types of questions: how big does a spill have to be before it's an incident? Does a complaint become an incident as soon as it is filed or only after it's been investigated and is deemed to be legitimate? When do off-site social issues get included the SIFR?

Only by developing and testing these metrics on multiple projects in various industries and regions will the data and experience be sufficient to refine and create general acceptance of the metrics. By including these metrics in your project planning you can start the conversation and start to manage environmental and social issues with the same rigor and attention as safety issues. It won't be perfect at the start, but perhaps in 10 years there will be clearly understood industry standard metrics and management plans to continue to improve the environmental and social sustainability of project delivery.

References:

Alderon Resources (2014), 2013 Annual Sustainability Report, Retrieved from http://www.alderonironore.com/resources/Sustainability_Report.pdf

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