

Presentation to Goldfields

Group

**Dave Brennan : Sales &
operations executive:
2009/07/17**

Flexi  LOG™

Intelli  PERMIT™

TO

Intelli  PERMIT™

COMPLETE CLEARANCE SOLUTION

Opti  RUN™
EFFECTIVE MAINTENANCE MANAGEMENT

Smart  SURE™
SAFETY HEALTH ENVIRONMENT QUALITY

Agenda

- Permit to Work systems
 - legislative requirements & common problems
- Overview of IntelliPERMIT™
- Technology & Integration
- Case Study – Metalloys West Plant
- Other Users

OHS Act Requirements

Section 13: Duty to inform

“as far as is reasonably practicable, cause every employee to be made conversant with the **hazards** to his health and safety attached to any work which he has to perform, any article or substance...and any plant or machinery which he is required or permitted to use, as well as with the **precautionary measures** which should be taken and observed with respect to those hazards”

Section 8: General Duties of Employers to their Employees

“taking such steps as may be reasonably practicable to **eliminate or mitigate any hazard** or potential hazard to the safety or health of employees, before resorting to **personal protective equipment**”

“ensuring that work is performed and that plant or machinery is used under the general **supervision** of a person trained to understand the hazards associated with it and who have the **authority** to ensure that precautionary measures taken by the employer are implemented”

OHS Act requirements...

- Identify Hazards
- Specify precautionary measures to be taken
- Provide a safe environment for work to take place
- Ensure that work is carried out under the authority of a trained person



Purpose of Permit to Work Systems?

- Ensure work takes place under safe conditions
- Inform workers of potential hazards and rules for working safely
- Control authorisation of work with effective delegation
- Visibility of work in progress
- Provide audit trail
- Implement best practices and comply with OHS Act



Common problems

Lack of Control

- ❑ Gap between procedures and practice
- ❑ No active controls to ensure appropriate PPE & precautions
- ❑ Poor control over authorisations
- ❑ Difficulty managing work done by contractors



Lack of Visibility

- ❑ Status of outstanding work is 'hidden' in various permit books
- ❑ Contractors leave site without signing permits
- ❑ Permits seldom cross referenced correctly



Paper Processes

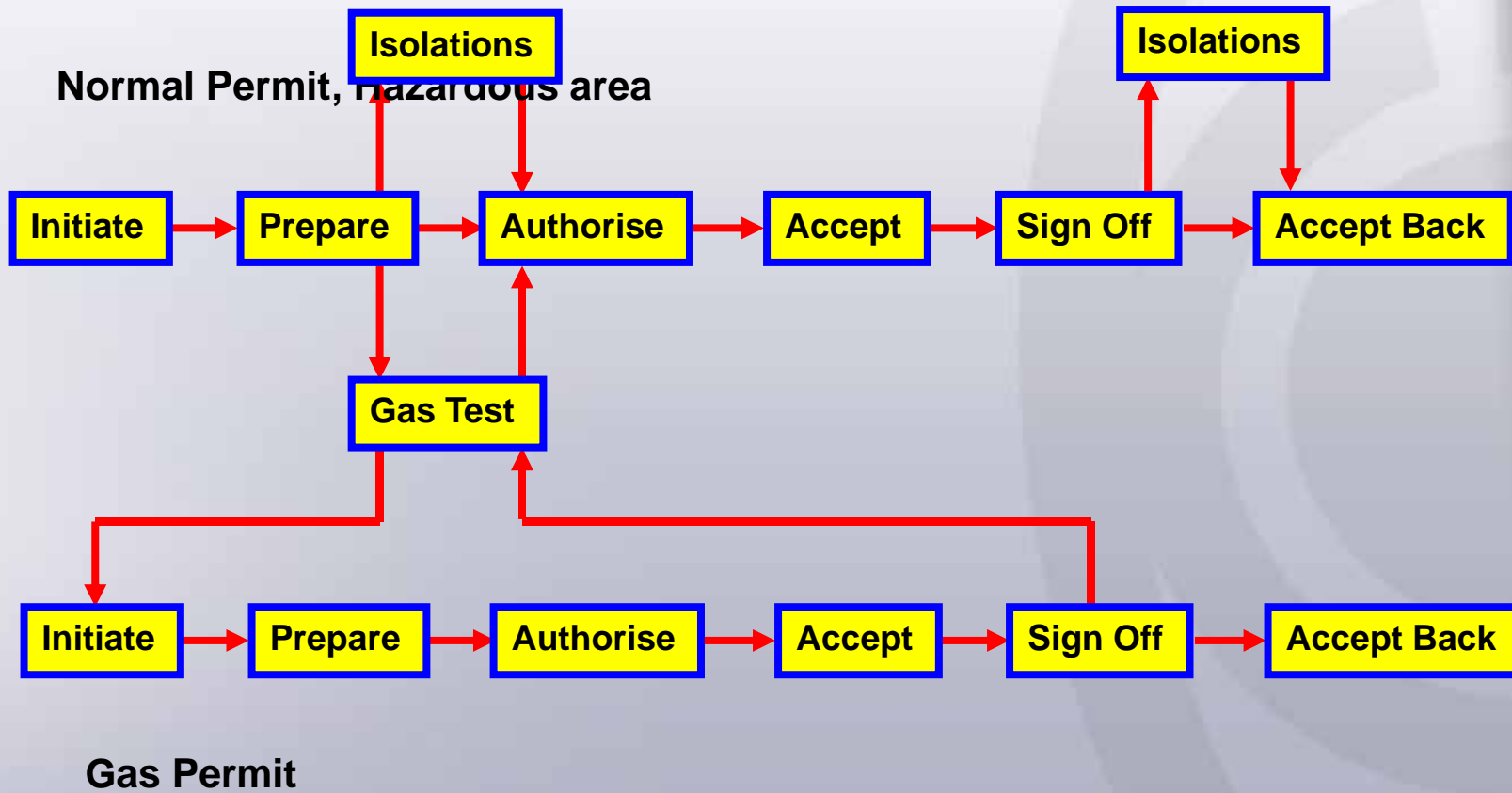
- ❑ Poor handwriting
- ❑ Permits filled in 'by rote' without proper consideration
- ❑ Inefficient, bottlenecks in the control room
- ❑ Difficult to audit



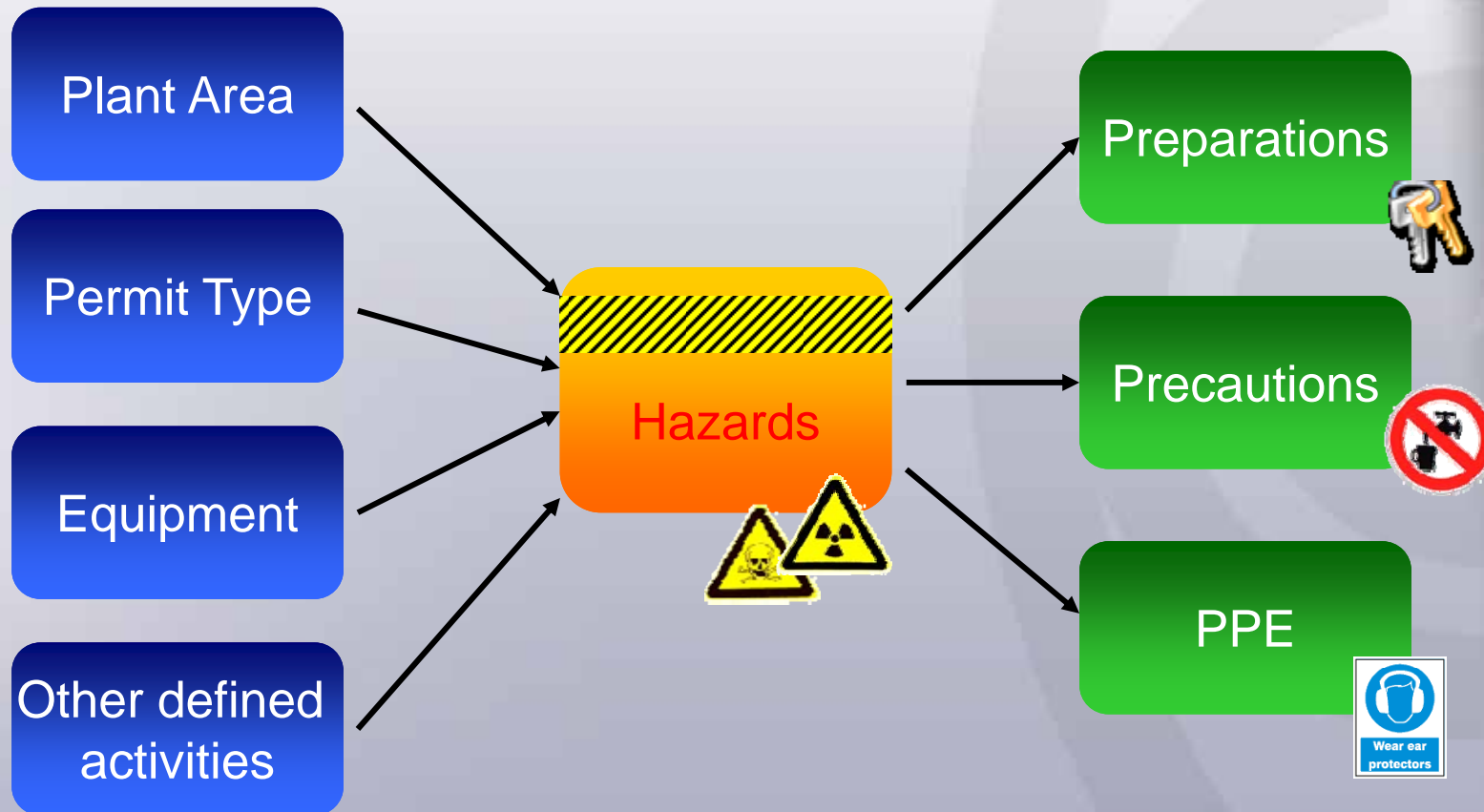
Scope of IntelliPERMIT™ Application

- Manages process of issuing permits-to-work
 - Task details
 - Hazards
 - PPE, Precautions and Preparations
 - Isolations
- Controls permit life-cycle
 - Initiation, preparation, authorisation, acceptance, signing off, acceptance back
- Competence-based authorisation
 - Permit type + Transaction type + Plant Area + PC Location
- Highly configurable
 - Permit types
 - Units
 - Hazards
 - Prompts
 - Actions
 - Etc, etc.....

Permit Life Cycle – Special Adaptations



Enforces rules for safe work



Creating an “intelligent” permit

- Simple user-friendly interface
- System automatically flags hazards that may be present
- Only relevant questions presented to the user
- Encourages issuers to consider the hazards and requirements of each task
- Daily reinforcement of correct procedures

“We did not anticipate what a useful training tool IntelliPERMIT would turn out to be. The system serves as a constant reminder of what the correct procedures are”

Gary Clancy, Operations Manager, SA Bioproducts

New Permit - Microsoft Internet Explorer

Exceptions
Please review the list of problems that the wizard has identified. Issues listed in red must be addressed before the Permit will be accepted by the wizard.

Question Type	Question	Required Answer	Given Answer	Severity	Reason
Precaution	Does the person have loose clothes, jewellery or long hair?	No	Yes	Alert	Alert
Precaution	Has the Crane been isolated?	Yes	No	Alert	Alert
PPE	Self-Rescuer	Yes		Raise Exception	
PPE	Hearing Protection (Earplugs/Muffs/Noise Clippers)	Yes		Disallow	
Precaution	Persons know that the plant is a no smoking area?	Yes	No	Disallow	

- Please take note of any alerts - changing your response to these items is optional.
- Answers marked as 'Disallow' must be changed before the Permit will be accepted by the wizard.
- Answers marked as 'Raise Exception' require you to modify your response, or provide a valid reason for your answers (this reason will be emailed to the responsible person for investigation).

Tip : clicking on an item will take you directly back to the applicable step in the wizard.

Help Cancel < Back Next > Finish

Controls Signing Of Permits

AREA:


- Crushers
- Smelthouse
- etc



Users' authorisation
validated according to:

PERMIT TYPE:

- Entry Only
- Hot Work
- Vessel Entry
- Roof Work
- etc



ACTION:

- Authorise a permit
- Accept a permit
- Sign Standby
- Transfer of Responsibility



Provides Visibility

Permit 12721
Status: **Accepted**

WORKFLOW

- Initiated
- Prepared
- Authorised
- Accepted

Permit	Links	Exceptions	History	Workers Register
12721				

PERMIT TO WORK Hot Work

Work: RELINE FEEDER DIB,
Plant Area: CRUSH - Conveyor
Work Order: Contract
Activity:
Additional Instruction:
Equipment:
Hazards:
Bumping head
Compressed Air
Defective Tools
Dust
Electrical Energy
Fire
High intensity light
Hot Surfaces
Mobile Equipment/Vehicles
Molten material
Moving Machinery
Noise
Old Explosives
Sharp Objects
Smoke
Spillages
Tanks, Vessels, Chambers
Unsafe Walkways
Untrained Staff
Precautions:
Beware of ringfeed and isolate accordingly : Noted
Beware of vehicles operating in this area : Noted

Permit Number	Responsible Person	Status	Expires On
12721	Enock Mtolo	Accepted	3/17/2003 15:08
27246	Enock Mtolo	Accepted	3/17/2003 16:17
27248	Enock Mtolo	Accepted	3/17/2003 16:47
27251	Enock Mtolo	Accepted	3/17/2003 12:53
27251	Enock Mtolo	Accepted	3/17/2003 13:32

On-Line...
No New Clearances...

Done Local intranet

“Monitor”
Large-screen format

Web interface
- enterprise-wide access

CLEARANCE CERTIFICATE - Normal Permit

Accepted 12299

Service Conveyor 1
 Company/Business Unit : Metal/CO - Unit A
 Plant Area : Raw Materials Area
 Work Order :
 Activity :
 Discipline : Contractor
 Additional Instructions: None.

Valid From : 2005/11/14 03:53:59 PM
 Valid Until : 2005/11/14 06:53:59 PM
 Initiator : Aurora Administrator
 Initiated : 2005/04/15 01:47:56 PM

Acceptor(s)

Name:	Cell Phone:
Colin Paruk	0123456789
Phillip Griggs	0129991111

PPE
The following Personal Protective Equipment must be worn/used:

- Dust Mask
- Goggles
- Hearing Protection (Earplugs/Muffs/Noise Clippers)
- Leather Gloves

Hazards
Please note the following hazards that may be present:

- Falling Product
- Moving Machinery
- CO Gas in Area < 50ppm
- Dust & Fumes
- High Pressure Lines
- Noise
- Poor Housekeeping
- Vehicles

Equipment

SL-1016	Slag FP Conveyor 1
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Preparations
The work site has been prepared and certified to be as follows:

- Clean and free from spillages or debris? Yes
- Equipment adequately guarded/barricaded? Yes

Precautions
The above work may be carried out as indicated provided that the following safety instructions are noted and carried out:

- Persons know that the plant is a no smoking area? Yes
- Persons aware that there may be vehicle traffic in the area? Yes
- Persons aware of the danger of high pressure lines in the area? Yes
- Persons aware of the danger of moving machinery in the area? Yes
- Has the area above the work space been inspected and cleared? Yes
- Do persons performing work have any loose clothing, jewellery/long hair? No

Linked Clearances

Serial No:	Description:	Status:

Other Clearances in this Area

Serial No:	Description:	Status:
12255	Daily PM - Check SILO VIBR/CONV 17 & B/FLY	Prepared
12299	Service Conveyor 1	Accepted

Isolations
I have personally performed the following isolations and have discussed them with the authorised acceptor. We have also witnessed the manual test of any electrical isolation.

Type:	Discipline:	Location:	Lock No:
Electrical field switch isolation (by Production)	Production	Conveyor isolated and locked out in the field	

Signatories

Action:	Signature:	Date:
Initiated	Grant Cowen	2005/02/02 09:30:54 AM
Prepared	Shirley Robwell	2005/02/02 09:31:21 AM
Authorised	Shirley Robwell	2005/02/02 09:31:33 AM
Accepted	Phillip Griggs	2005/02/02 09:32:14 AM
Accepted	Colin Paruk	2005/02/02 09:32:26 AM
Transfer of responsibility - (shift handover)	Bradley Ryan	2005/02/02 12:51:41 PM

Details of work to be performed

Only prints hazards & questions relevant to the task

List of isolations & locks

Symbols to reinforce hazards & required PPE

View other permits in the same area

Audit trail of signatories

Biometric identification

- SAGEM fingerprint scanners for “signing” permits
- Large sites manage >1500 fingerprints



SAGEM
MORPHOSMART™



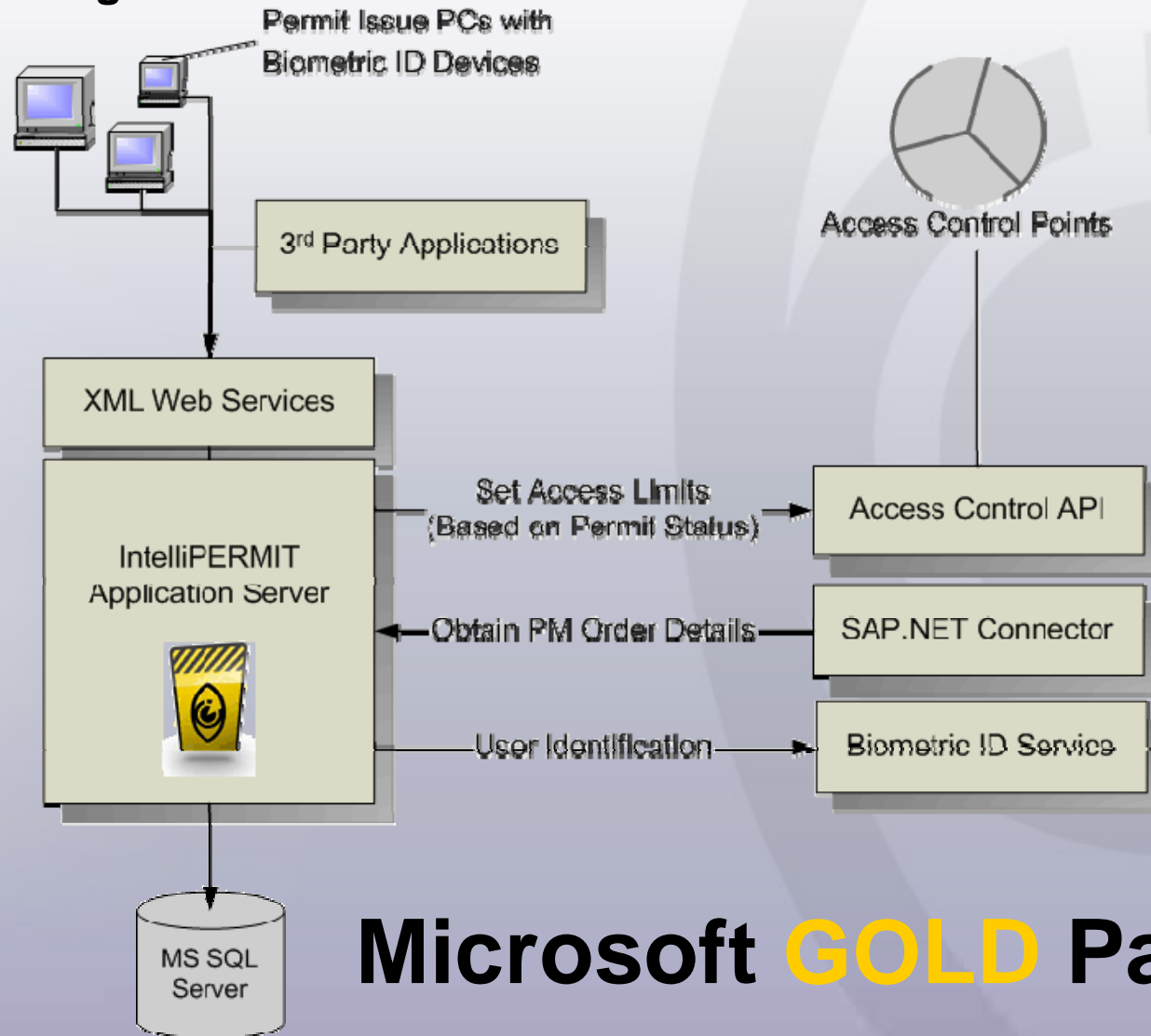
- Streamlines the authorisation/accepting of permits
- Ensures that only authorised personnel can sign permits
- Overcomes problems with passwords

Benefits

- High quality permits that comply with procedures
- Effective delegation of responsibility
 - Only authorised persons can sign
 - Management notified of deviations/exceptions
 - Constant reinforcement of training
- High visibility of work in progress
 - Better communication
- Improved efficiency of permit process
 - Templates, pre-loaded procedures
 - No paper shuffling
 - Easier to reconcile
- Comprehensive audit trail



Technology & Integration



Microsoft GOLD Partner

Case Study: Samancor Metalloys West Plant

- ▶ Samancor Manganese controls 80% of the worlds high grade Manganese ores
- ▶ Metalloys runs some of the largest electric arc furnaces in the world
 - approx 1500MW of electricity consumed by site
 - Ferromanganese and silicomanganese alloys
- ▶ Advalloy is a JV with Samancor, Japan Metals and Chemicals (JMC) and Mitsui



samancor manganese



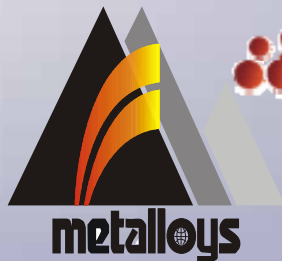
Case Study: Samancor Metalloys West Plant

- 350 permits per week from 3 permit issue points
- Implementation complete in 2 months
- Integration to SAP PM
- Integration to biometric scanning devices
- Subsequently rolled out to all other units on site
- Currently nearly 1 000 permits issued per week on whole site

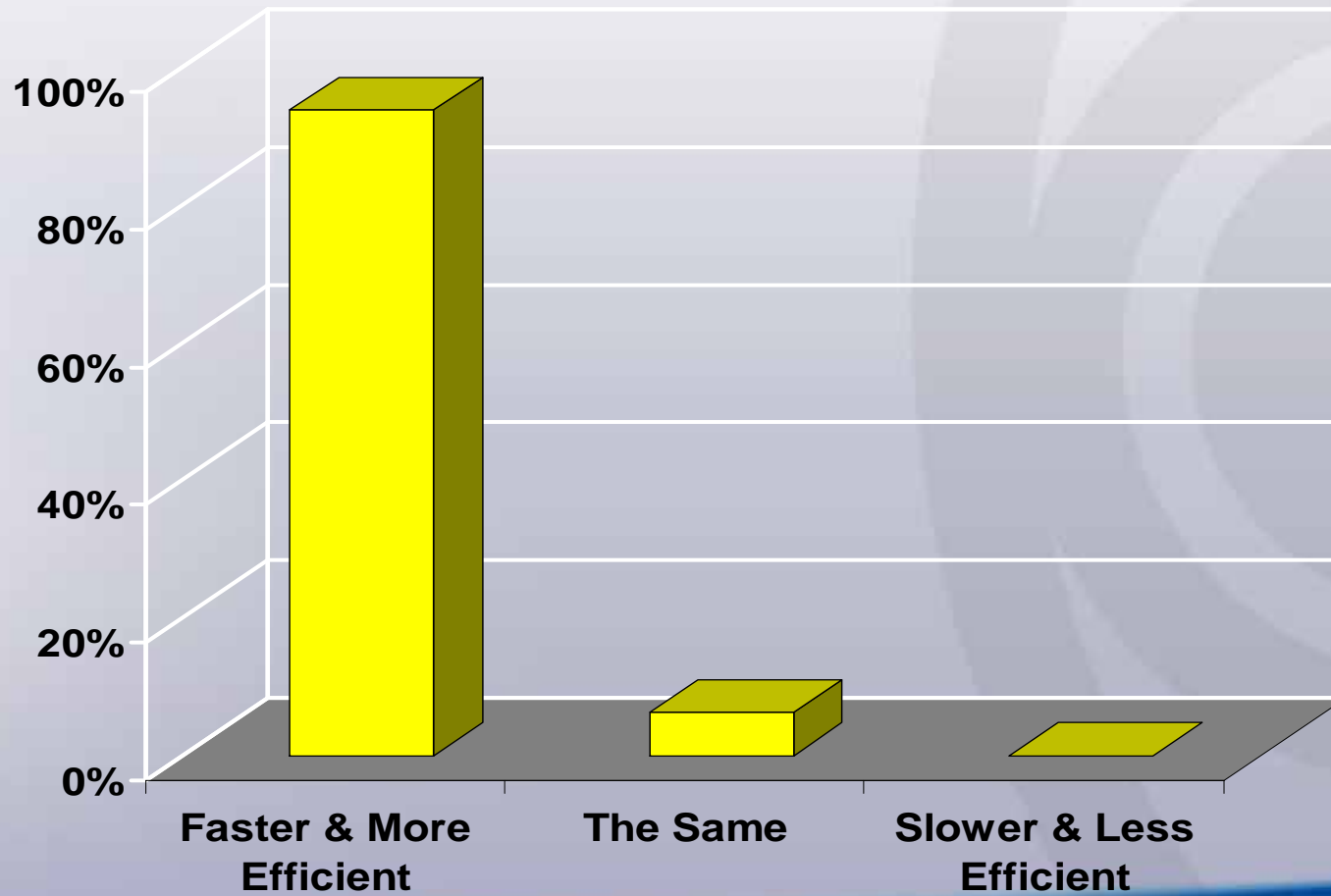
“One of the few projects where the vendor actually delivered the expected results”

Steynberg van Rensburg, Production Superintendent
Metalloys, West Plant

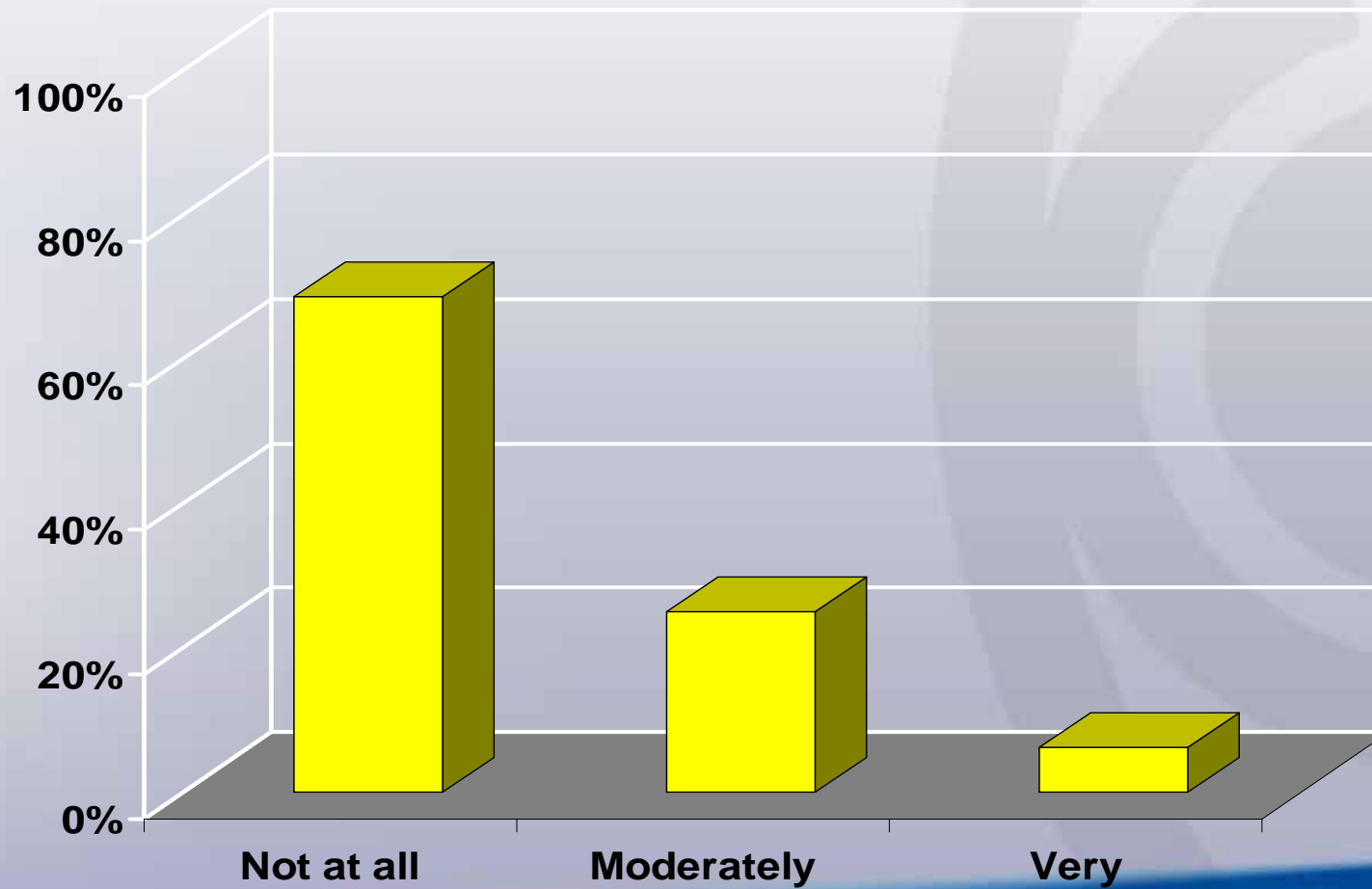
samancor manganese



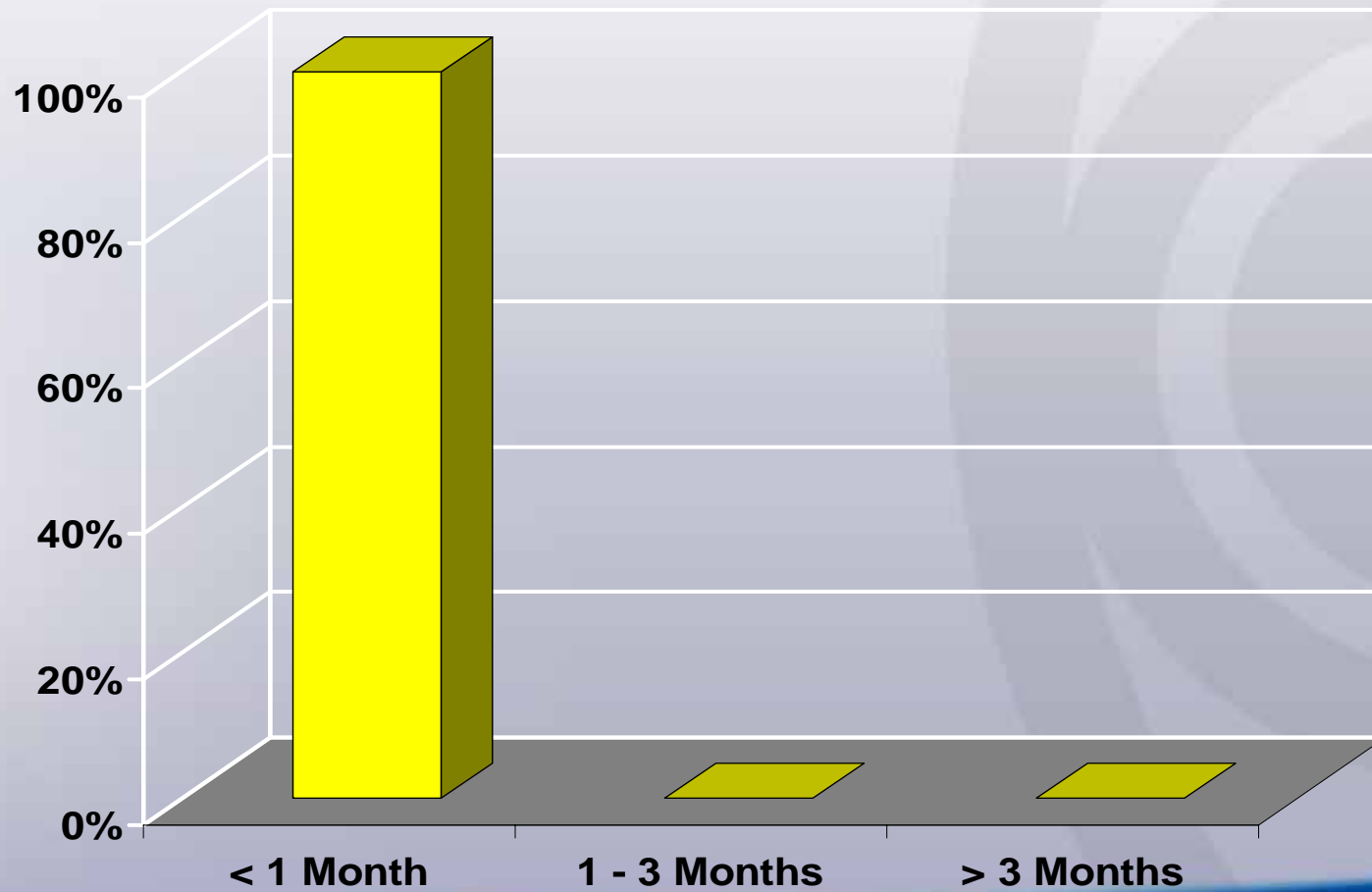
In terms of time & efficiency, how does the electronic system compare to issuing a paper clearance?



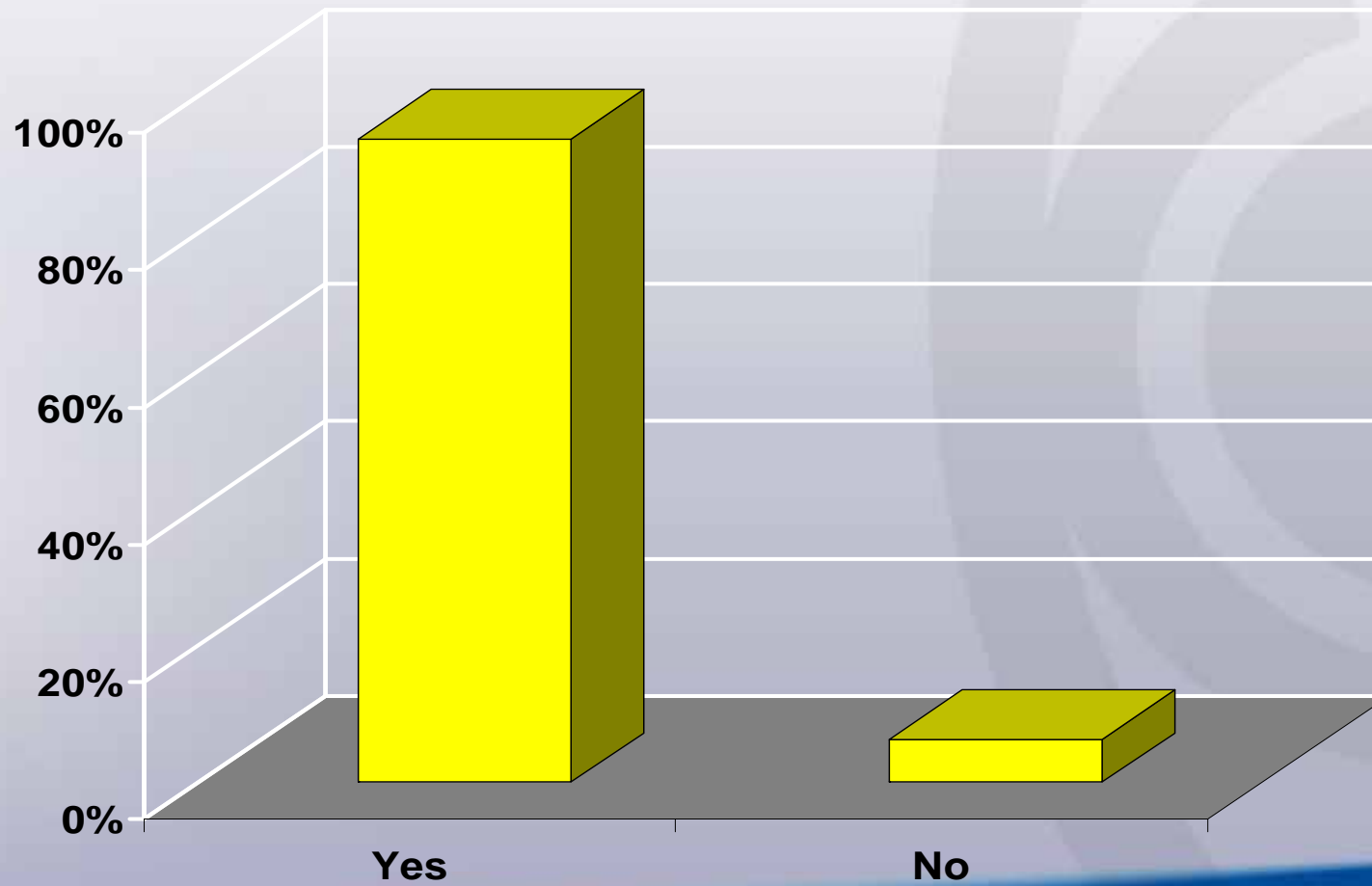
When you first began using the electronic clearance system, did you feel that it was complex and confusing?



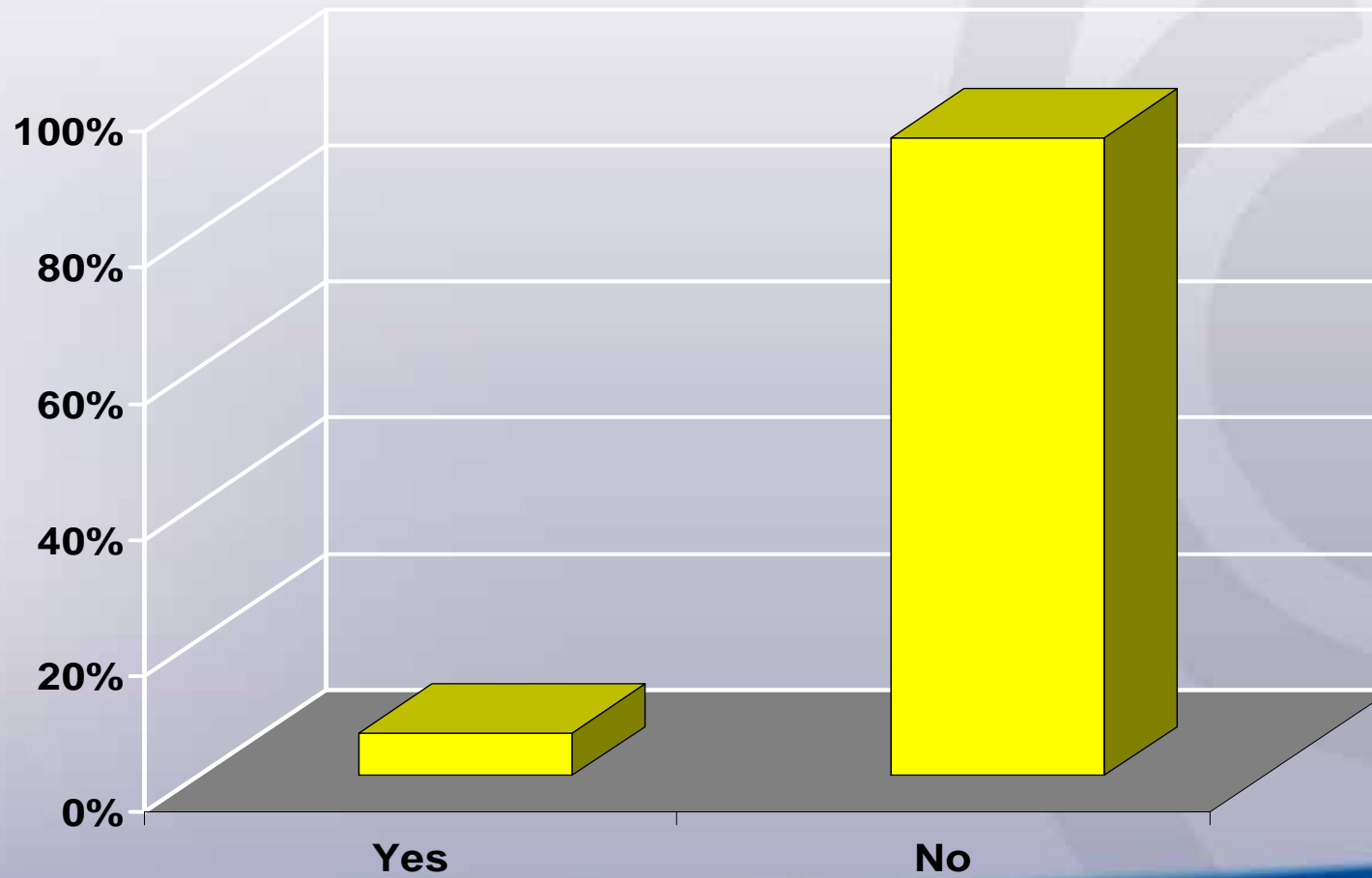
How long did it take you to become confident in using the system?



Do you feel that the system adds any particular value to you in your job?



Would you like to return to the use of the paper permit system?



Users' Comments:

“It helps you to remember things relating to safety that you might otherwise forget”

“Very pleased with the system, Easy to audit permits”

“People are always reminded of the right PPE & hazards in the specific area”

“The system is very good. Excellent!”

“Permit gets issued faster
- more time working, less time waiting”



“100% better!”

“Personnel are always aware of PPE & hazardous areas”

“Effective and efficient!”



CRAY VALLEY



NAMAKWA SANDS 



Managers' Comments:



"We did not anticipate what a useful training tool IntelliPERMIT would turn out to be. The system serves as a constant reminder of what the correct procedures are"
Gary Clancy, Operations Manager, SA Bioproducts

"Permits-to-work, risk assessments and access control form one of the cornerstones of our safety drive. IntelliPERMIT offers a state of the art system to integrate these elements seamlessly"

Philip Hechter, Vice-President RSA Operations, Samancor Manganese



"IntelliPERMIT ensures employees adhere to safety rules and perform thorough risk assessments, thereby protecting themselves from the risk of possible injury"

Willie Bloem, Production Superintendent, Mondi Shanduka Newsprint

"We found IntelliPERMIT to be practical, it added no unreasonable administrative burden and, most importantly, improved communications between those requesting the permits and those responsible for authorising them. IntelliPERMIT clarifies precise procedures at our mines and ensures these are reinforced by the permit system on a daily basis."

Johann Hattingh, Resident Engineer, Hotazel Manganese Mines



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