

EFCOG HPI Working Group Monthly Conference Call, January 27, 2022

Callers:

- Mike Petrowski (LANL)
- Lauri Minton (PANTEX/Y-12)
- David Fink (LANL)
- Dave Baird (FNL)
- Jemila Adetunji (FNL)
- Daryl Smoldt (SRNS)
- Doug McKenzie (SRNS)
- Cheryl MacKenzie (SNL)
- Ben Close (SNL)
- Nancy Van Wermeskerken (PPPL)
- Bill Brown (BNL)
- Tim Snow (NREL)
- Rachel Vavra (NREL)
- Brandy Young (INL)
- David Boyce (INL)
- Tamara Shokes (INL)
- Lloyd Keith (WRPS)
- Jeff Warga (LLNL)
- Paula Pallan (ANL)
- Lauren Gagan (ANL)
- Sue Baumann (ANL)
- Riz Shah (DOE)
- Andrew Peterson (LBNL)
- Delwin Allred

1) Task Team Business

a) Review/Update Tasks and initiatives

Human Performance		
Activity(s)	Benefit(s)	Deliverable/Key Milestone(s)
<p>ISM-HPI-22-01 ISM-WP&C-22-01 Collaborative effort between HPI and WP&C</p> <p>Meeting will kickoff January 12, 2021.</p> <p>Team will meet monthly, 2nd Wednesday, 12:00-1:00 EST</p>	<p>BENEFITS id'd in EFCOG Plan</p> <ul style="list-style-type: none"> Integration of HPI into WP&C Provide Best Practices/ Guidance that incorporates HPI factors into WP&C practices <p>GOALS:</p> <ul style="list-style-type: none"> Provide <u>some</u> best practices and techniques to apply for tasks such as Post-Job reviews (After action Reviews), writing techniques to incorporate place keeping, HPI tools, critical steps, etc. Align ISM wheel with HPI tools (SRS) Emphasize the importance (value added) when HPI is part of WP&C; building resiliency into the process Consider - Crosswalk DOE HDBKs 	<p>DELIVERABLE (9/30/2022)</p> <ul style="list-style-type: none"> Generation of guidance for improvement on Pre-Job Briefs, Post Job Reviews, Integrating HPI into job planning. Pause/stop work, etc. <p>Team</p> <ul style="list-style-type: none"> Mike Petrowski, LANL - Facilitator Chuck Ramsey, ORNL Lauren Gagan, ANL Bill Brown, BNL Susan Bauman, ANL Trish Hughes, ICP Jeff Warga, LLNL Cheryl MacKenzie, SNL Andrew Peterson, LBNL Dan Gautier, J-Lab Linda Collier, LANL James Bashore, LBNL

Human Performance		
Activity(s)	Benefit(s)	Deliverable/Key Milestone(s)
<p>ISM-HPI-22-01 HPI for Knowledge Workers</p> <p>Kickoff meeting held on December 13, 2021</p> <p>Team will meet monthly, 2nd Monday, 2:00-3:00 EST</p>	<p>BENEFITS:</p> <ul style="list-style-type: none"> Realize opportunities to break the myth where people believe that HPI does not apply to them as they perform no physical work <p>UPDATE: Team aligned on producing a White Paper providing an overview of the task, benefit of the task, outline of what is included:</p> <ol style="list-style-type: none"> Attachment: WRPS Engineering Survival Guide (matched INPO 05-002, rev 1) – This is the deliverable in the EFCOG Annual Plan Attachment: Training ideas, insights, and possible lessons plans (maybe) for Knowledge Worker HPI training <ul style="list-style-type: none"> How to modify your training for the student (administrators, HR, project management, etc.) How to investigate KW errors that result in incidents (delivered deficiency – HPI investigations). 	<p>DELIVERABLE (9/30/2022):</p> <ul style="list-style-type: none"> Issue adaptation for DOE complex from INPO 05-002, Rev 1: Human Performance for Engineers and other Knowledge Workers <p>Team</p> <ul style="list-style-type: none"> Mike Petrowski, LANL - Facilitator Sue Bauman, ANL Tamara Shokes, INL David Boyce, INL Lloyd Keith, WRPS Lauri Minton, PANTEX Chuck Ramsey, ORNL <p>*(limited participation)</p>

Human Performance		
Activity(s)	Benefit(s)	Deliverable/Key Milestone(s)
<p>HPI-Task 22-03: HPI Messaging</p> <p>Kickoff meeting held on December 1, 2021</p> <p>Team will meet monthly, 1st Wednesday, 1:00-2:00 EST</p> <p>Task team members shared lessons and what they are most proud of; Cassie has taken that information and started the document on HPI Messaging; next meeting will share what they have; very productive so far</p>	<p>BENEFITS:</p> <ul style="list-style-type: none"> Getting people to embrace and integrate HPI into daily work. Bringing INPO Practices into DOE environment as seek performance improvement <p>GOALS:</p> <ul style="list-style-type: none"> Provide avenues that may be leveraged to communicate HPI Integrating HPI into general business practices to minimize the risk posed by human error Educating the workforce about HPI, the benefits of HPI, and opportunities to use HPI Gives you the foundation to build reliability into your operations (repeat safe work). At the end of the day it's not about safety, it's about performance. Opportunities to capture what you do well and where you can do better. Make HPI part of the culture so it's second nature 	<p>DELIVERABLE: (9/30/2022)</p> <ul style="list-style-type: none"> Getting people to embrace and integrate HPI into daily work. Bringing INPO Practices into DOE environment as seek performance improvement <p>Team</p> <ul style="list-style-type: none"> Daryl Smolt, SRS - Facilitator Dave Baird, FNL Mike Petrowski, LANL Cassie Sistare, SRS Paula Pallan, ANL Trish Hughes, ICP

b) Announcements

EFCOG Safety Working Group FY 2022 Annual Work Plan (<https://efcog.org/wp-content/uploads/Wgs/Safety%20Working%20Group/Documents/EFCOG%20Safety%20Working%20Group%20FY22%20Annual%20Work%20Plan%20FINAL%20211123%20SIGNED.pdf>)

EFCOG Annual Report 2020 (<https://efcog.org/wp-content/uploads/Library/Annual%20Reports/2020%20EFCOG%20Annual%20Report.pdf>)

CAS Task Team: BEST PRACTICES FOR PERFORMING INVESTIGATIONS/CAUSAL ANALYSES WITH CONSIDERATION OF HUMAN PERFORMANCE IMPROVEMENT PERSPECTIVES

(<https://efcog.org/wp-content/uploads/Wgs/Safety%20Working%20Group/Integrated%20Safety%20Management%20Subgroup/Contractor%20Assurance%20System%20Task%20Group/Published%20White%20Papers/EFCOGC~1.PDF>)

c) Upcoming Meetings (EFCOG and other HPI meetings)

None

• **Webinars: - still the same**

- Paradigm Human Performance Ltd + Shane Bush
 - www.paradigmhp.com
 - Thursdays 2:00 PM GMT
 - POC - Teresa Swinton: webinar@paradigmhp.com
 - Registration: <https://www.paradigmhp.com/learning-organisation-webinar>
 - NEW NAME for Webcast library: HOP Academy
- EUCI - Human Performance Community of Practice – Tony Muschara, Jim Moranis, and Ron Farris will be talking about their book on critical steps this afternoon – will be a good one to sit in on
 - <https://www.resilientgrid.com/hpcop>
 - Hosted by Knowledgevine
 - Every other Thursday 4PM EST
 - HP Community of Practice discussions will continue to take place every other Thursday and are free for the HP community to participate. There will be a presentation and discussion by a few select hosts, followed by a question and answer/discussion period for all. We will follow up on the session with a virtual Happy Hour.
 - To join: <https://mailchi.mp/e4274b7f9e84/hpcop>
 - HumanPerformanceCOP@gmail.com

- Past Presentations: <https://www.resilientgrid.com/hpcop-3>
- CHOL - Community of Human and Organizational Learning
 - Formerly HPRCT
 - <https://www.cholearning.org/>
 - <https://hprct.org> redirects you to the new webpage
 - 28th Annual Conference - June 14-17, 2022
Cheyenne Mountain Resort in Colorado Springs, CO

2) HPI Share

David Baird & Jemila Adetunji

Fermilab's HPI Program

COPY OF PRESENTATION is attached to email

Everyone at laboratory goes through a half-day course, and managers go through an one-day class. Still have some HPI practitioners who lead most reviews. Big change at lab took place when they created the reviews using HPI Principles database – it's not incident investigation with HPI slapped on – it is trying to utilize the HPI principles and keeping the information in a database form. Their database is now in Oracle, and integrated into their IM system and other applications within the Fermilab Quality Tool Suite. At this point Fermilab has conducted nearly 300 reviews using the HPI Principles.

Another key change is that their Quality section, now Office of Quality Assurance, separated from the ESH org, and is now the HPI program management group.

The effort within their HPI Subcommittee is to move the laboratory away from opinion-based management and more toward the evidence-based management from what the data is telling us.

One of the groups that is critical for reviews using HPI principles is the Incident Analysis Team (IAT); this group meets twice a month to go over the HPI reviews and focuses on ensuring that the HPI topic selections, precursors, LOW's, causal codes, align with IM opportunities for improvement. The IAT provides feedback, and based on the feedback, the HPI Lead will go back and answer any questions or additional issues that come up.

Early on, illnesses and injuries were the primary incidents that were being captured into the database; if it is a DART case, a review using HPI Principles is performed; over time, the laboratory has seen the advantages of using the HPI processes; seeing more near misses and unexpected outcomes being entered into the database, which is good. ORPS or NTS reviews are done with HPI Principles as well.

[database demonstration]

Q: how far back do you go on line of questioning to find precursors?

A: Good question. We don't specifically have a timeline or a set period to go back to, but that's a good idea.

Comment: it can sometimes help them to start talking about how their day started and to put them at ease.

Q: How often does the database get used?

A: Not every incident has to be reviewed using HPI principles, there is some criteria before an HPI review happens, but it does get used. Early on, since the program was initially put forth by the safety organization, a lot of injury information is put in, but now that the Quality org hosts the HPI database, there are a lot more types (near misses and unexpected outcomes) being reviewed and entered; the organization overall is seeing the value of doing these reviews and they are doing them. They have had some reviews in which people have used it as a blame game, so we are trying to label it as a discovery type of process, shared learning/discovery.

Q: How was the decision made to have the Quality section take it over vs. ES&H?

A: The scope of reviews was beyond ES&H – a lot of process-related items were being brought forth, and we knew that would be value-added; it would be best to keep it from being a safety-labeled activity; putting it under Quality broadened the scope for everyone.

[presentation continued]

Sept/Oct 2020 timeframe, after Quality took it over, within a year's time, it became evident that we would move some of the responsibilities from the IAT group and create an HPI sub-committee; took data, looked at the top 5 error precursors at the time from ~270 reviews at the time. The HPI Subcommittee at Fermilab; showed structure (FESHCom); they have representatives across the organization at the laboratory – not just Safety or Quality; their perspective and input are important to the committee; everyone's voice and perspective matters when it comes to the committee, and that helps us make sure we are not being short- or long-sighted.

Mike Petrowski shared in the chat window: Jemila and Dave: The HPI Task Team White Paper "asking better questions to identify error precursors" may be useful during your HPI Investigations (<https://efcog.org/wp-content/uploads/Wgs/Safety%20Working%20Group/Integrated%20Safety%20Management%20Subgroup/Human%20Performance%20Improvement/Tasks/20-2%20Task%20White%20Paper-Asking%20Better%20Error%20Precursor%20Questions.PDF>)

Mike also shared this in the chat window: CAS Task Team: BEST PRACTICES FOR PERFORMING INVESTIGATIONS/CAUSAL ANALYSES WITH CONSIDERATION OF HUMAN PERFORMANCE IMPROVEMENT PERSPECTIVES ([https://efcog.org/wp-content/uploads/Wgs/Safety%20Working%20Group/Integrated%20Safety%20Management%](https://efcog.org/wp-content/uploads/Wgs/Safety%20Working%20Group/Integrated%20Safety%20Management%20Subgroup/Human%20Performance%20Improvement/Tasks/20-2%20Task%20White%20Paper-Asking%20Better%20Error%20Precursor%20Questions.PDF)

[20Subgroup/ Contractor%20Assurance%20System%20Task%20Group/Published%20White%20Papers/EFCOGC~1.PDF\)](#)

At the start of the HPI Subcommittee, they shared the member's basic responsibilities; shared the importance of being an active participant, add perspective during meetings; act locally, think globally; establishing or enhancing preventive measures using strategic ideas; reviewing unwanted outcomes and analyzing resultant data; identify trends and recommend changes in policies and procedures to enhance lab-wide initiatives.

Goal was to utilize the data in the HPI database to figure out what the data is telling us; it's always a mess, but it's sad when you have data, and you don't use it. There have been attempts in the past to look at this type of data, but they were more siloed; it's better to have a wider organization perspective. They wanted to look at the information and the drivers or root causes behind the events.

They asked their members to socialize the information with their work groups (leadership or specific groups) to initiate a conversation; did they see similar things, did the data resonate with them, or did it look like it didn't fit; they spent a lot of FY2021 doing this; at the end, a summary report was aggregated to highlighted efforts from FY2021 (shared with minutes from December 2021 EFCOG HPI Task Team meeting).

Four main areas of concern were identified as main drivers for lab incidents and unwanted outcomes:

- Communication
- Planning and Scheduling
- Standardization of Processes
- Time Pressure

They dug deeper to get more detail on the analysis. Example in the screen shot below:

Communication is a vast issue and recurring causal factor behind several issues. Communication is also a cause identified from various lab assessment activities.

- Lack of transmitted information
- Unclear communication; minimal/incomplete details
- Clear communication not received
- Lack of transparency; information only communicated to certain forums/groups
- Insufficient resources can lead to communication gaps
- Insufficient communication between organizations/groups

Analysis of the detail was shared for all four areas of concern.

The HPI Subcommittee tried to brainstorm and proposed recommended actions to address the concerns related to the information in the deeper detail revealed in the analysis, and their proposed actions were shared with the appropriate topical areas within the laboratory to help with improvements.

Other actions they are working on are a terminology update, removing “investigation” and using “reviews using HPI principles,” and eliminate the use of “HPI Investigations,” and reminding personnel that HPI is not about being punitive. HPIS members are to review available management-related training to identify opportunities to include elements that can address the top areas of concern and having senior leaders and front-line leaders participate in a review using HPI principles.

The next steps provided to lab staff included digesting the details of the report (mainly outcomes) and discussing with their teams how the info relates to their teams; finding ways to address the top areas of concern in their areas where issues may be prevalent; identifying how they and their teams will support lab activities, etc.

Q: Or maybe I should have asked to have you seen any benefit one way or the other by previewing procedures verses going in without previewing procedures?

A: Most teams do start with trying to understand what occurred by what went on, then that leads to the review of this information.

A: They have their reviewers keep in mind that a lot of activities have been prescribed in procedures, so walking back to those documents is important.

Comment: Agrees it is important to ask the person why what they did made sense to them at the time. It's important to keep the relationship rather than looking at the fault, and I think you've covered those things nicely. If we start looking ONLY at procedures, we will be finding fault. Might also ask them what they would suggest to improve moving forward.

3) Roundtable

- Mike Petrowski (LANL) – continuing learning teams at LANL; 2 initiatives they’ve been asked to help with: slips-trips-falls, and traffic behaviors; if anyone has any experience or help to offer, please let him know
- Dave Baird (FNL) and Jemila Adetunji (FNL) – brought the team up to speed with the “HPI Share” presentation, but the proof will be where this leads in the coming months/year
- Daryl Smoldt (SRNS) – continuing their efforts at reinvigorating HPI; about to start a new round of HPI dynamic learning activities with their most recent set of new hires; will run through some of the DLA’s with them in addition to formal classroom training; they used to be one big company but now there are a number of different contractors for different activities, but they are trying to make sure their HPI initiatives are consistent across the site
- Lauri Minton (PANTECH/Y-12) - still reinvigorating HPI across CNS; contract was announced, but was protested (as expected) so they are in the middle of contract protests right now; BushCo HPI is offering their basic course March 1-3 in a virtual format – great class; they are starting to be able to pull HPI Precursor information out of their new-ish Issues Management program (TOPIC), and it’s interesting to see what the data is telling them; working with Riz Shah out of Headquarters on some classes, and also some data analytics our team has been doing.
- Tim Snow (NREL) – just getting into rolling HPI into their investigation process – this group is extremely valuable for him; Mike emphasized that this is a GREAT group and to not be afraid to reachout to any of us
- Brandy Young (INL) – they sent a survey to their HPI working groups to see what they wanted/needed, and it was HPI and coaching; their process owners have been asked to go through a PACE activity – their HPI group has been asked to do some training for them;
- David Boyce (INL) – been developing HPI and Coaching with Shane Bush; Brandy is involved with a lot of things at INL – proactive effort with HPI and several subteams (HPI Leads, HPI Practitioners, their system for reporting, knowledge worker revision – interested in anything knowledge worker related, Brandy is also working on HPI Shares in short videos, continuing education topics); she is taking care of website; he and Shane are working on what they’re calling Advanced HPI Topics – coaching, learning teams, feedback, HPI metrics, prejob briefings, - several things going on. Also did a baseline of where they are HPI-wise for when they rolled out the guide on resiliency (June 2020). They have a lot of things going on, seeing some fun times together, seeing successes.
- Lloyd Keith (WRPS) – their corrective action management/trending is in a separate org than he is, so they’re providing tools (mentioned 3-D model) to help people in the field; doing a lot of training; a large attrition rate, so a lot of new people coming in who have to be trained
- Jeff Warga (LLNL) – Currently holding HOPI-Working Group meetings every 2 weeks.
 - Populating 2 Task Teams for the following initiatives:

- Identify opportunities for introducing HOPI ideas, tools, resources, etc., within the LLNL WP&C Process.
 - Improve Safety Culture and Disciplined Operations through increasing, improving, and tracking management engagements related to safety.
- Revising our HPI Practitioner training requirements and vetting multiple training sources.
- Paula Pallan (ANL) – she is part of incident investigation group; trying to incorporate quality and HPI into the investigations – it’s a work in progress, so if anyone has anything to share, they would appreciate it
- Sue Baumann (ANL) – EA is coming for an assessment in April, so they are working with their internal team to build up psychological safety, trying to get them to understand the process of doing work, helping workforce build trust, have had some success; one team had very good conversations/coachings recommending how to talk to people – that team asked our team to come back and work with them; still, other teams are nervous about EA coming in, but that’s normal

Mike thanked all presenters, and reminded attendees if they want to help with any of the Task Teams to let him know.

Next meeting is February 24th

Meeting concluded at 12:25 CDT