From: Sent: To: Cc: Subject: Russell Wong Tuesday, July 19, 2011 9:29 AM Evan Vokes David Taylor; Tom Hamilton RE: Quality Field Personnel (NDE Auitors)

Hi Evan

Thanks for your feedback of the issues surrounding AUT auditors versus engineers/technologists not having necessary skills. And you are right Evan. That is why Tom and I agreed that we will be contracting AUT auditors. I have spoken with Team and UT Quality and they will be willing to provide AUT auditors for full duration of the construction work. We will require 4 auditors for US spreads and each will report into the four QA Lead Auditors. So I believe the next step is to issue RFP to them followed by evaluation of their resumes, probably an interview and then award. I will need to engage SCM as how the RFP process will work or would it be just conversion of the current Canadian contracts to US contract.

Nevertheless, we shall keep you in the loop of our progress.

Cheers Russell

From: Evan Vokes Sent: Monday, July 18, 2011 6:06 PM To: Russell Wong Cc: David Taylor Subject: RE: Quality Field Personnel (NDE Auitors)

Hi Russell

The position is for a person in excess of my skill which is a lot harder to find than you would imagine and you wont find this as an E3. In my experience this is the subject area that is least understood by project management but creates more than its share of problems.

Engineers are not normally qualified to ASNT level II or CGSB level II as we generally have to go for the certified ASNT level III due to the practical experience requirement. It is much easier to find CETs that have these level II qualifications. Audit that is acceptable to TC is expected to come from my group Material Engineering for acceptance.

There are two parts to the audit that we need to talk about: a) the technical audit where you need a person who has the technical understanding to follow the requirements of the Audit spec TEP NDT ADT b) an overseeing auditor that can train where needed and can verify that the audit requirements are in fact being followed.

In the USA, there is a pretty small market of suitable AUT auditors in group a) as the auditors tend to be AUT hands that are auditing their friend's relatives etc. this is how we end up with audits that don't take calibrations into account and auditors that do not understand AUT so I would caution that we need to ensure that we need to hire auditors that are good at auditing the particular NDE technique at hand. The shear quantity of Data that is available will preclude looking at very many files so group a) needs to be picked so that each auditor can have a workload at most of about 350 welds a day at a 15% audit coverage. This would be a full time job for an AUT auditor. Any more welds that that and we know they are not looking at the electronic data and in the case of phased array, that means they are not auditing the calibrations, rather just the interpretation.

The second part is the posting shows Keystone is looking for a quality engineer, an NDE engineer and a welding engineer in one person. Even in our specialist group, we would not be able to satisfy your job posting. You will find several engineers and technologists that have offshore experience but there are some real differences with onshore pipelines as we do not make thousands of welds without any changes on wall thickness, types of welding etc. I can send you an engineering resume that meets the description but a technical challenge would find that this person does not understand AUT at all.

The big challenge I see that you must overcome is hiring a person that understands NDE enough to direct the hiring and management of auditors. You might want to limit the scope to this subject as there are not a lot of people that can fit your job description at an E5 or T6 level. For your overall description, the selected person should be able to ensure that the NDE specifications are adhered too and are the data collected is auditable by TC Material engineering. The theory is that Kevin Thiessen does this task of organizing AUT auditors for us as described above. Kevin's qualifications are a good starting point for this job of quality field personnel.

Have a good day Evan

From: Russell Wong Sent: Wednesday, July 13, 2011 5:31 PM To: Evan Vokes Subject: FW: Quality Field Personnel (NDE Auitors)

Please review.....

From: Tom HamiltonSent: Wednesday, July 13, 2011 1:39 PMTo: Russell WongSubject: Re: Quality Field Personnel (NDE Auitors)

Well, write it up anyhow.

From: Russell Wong
Sent: Wednesday, July 13, 2011 12:53 PM
To: Tom Hamilton
Subject: RE: Quality Field Personnel (NDE Auitors)

This will be a scope addition to RFP that went to 22 inspection companies. Obviously they will need to be Level 2 ASNT certified with AUT experience. Evan is on holidays and will be back next week. AUT may not be recognized by ASNT. CGSB does not recognize AUT other than someone having UT certification.

From: Tom Hamilton Sent: Wednesday, July 13, 2011 12:50 PM To: Russell Wong Subject: Fw: Quality Field Personnel (NDE Auitors)

Please write up, with Evan's help if you need, a position decription for this role, similar to the welding and coatings auditors. Obviously they will need to be Level 2 ASNT certified. Thanks, Tom

From: Tom Hamilton Sent: Wednesday, July 13, 2011 12:30 PM Io: Russell Wong Subject: Re: Quality Field Personnel (NDE Auitors) We will be hiring one per State here in the US regardless of what Ken does in Canada.

From: Russell Wong Sent: Wednesday, July 13, 2011 12:28 PM To: Tom Hamilton Subject: RE: Quality Field Personnel (NDE Auitors)

Typically NDE auditing is handled by Materials Eng by couple of individuals and actual work is often contracted to NDE for auditing.

From: Tom Hamilton Sent: Wednesday, July 13, 2011 12:23 PM To: Russell Wong Subject: Fw: Quality Field Personnel (NDE Auitors)

I discussed this with Stephen this morning. The NDE auditors need to be added to our team.

From: Tom Hamilton
Sent: Tuesday, July 12, 2011 04:41 PM
To: Stephen Marr
Cc: David Penning; Darryl Sandquist
Subject: RE: Quality Field Personnel (NDE Auitors)

Let's talk about this tomorrow.

It feels natural that the NDE auditors, since they're auditors, should be in the audit organization and not report through the inspection organization, but perhaps I'm missing something?

Tom

From: Stephen Marr
Sent: Tue 7/12/2011 8:00 AM
To: Tom Hamilton
Cc: David Penning; Darryl Sandquist
Subject: RE: Quality Field Personnel (NDE Auitors)

Tom,

NDE auditors were used on Phases 1 and 2, and are included in the inspection organization for each spread on Phase 4, reporting to the Chief Inspector. I just checked with David and he does not call out NDE auditors specifically on his Phase 3 org chart but they are included generically as part of the utility inspector head count.

That being said NDE auditors were omitted from the current RFP for U.S. inspection services – this was an oversight. We could correct that once we have responses from those contractors that would supply field quality personnel (i.e. probably not much point burdening environment inspection companies with a RFP amendment). A position description will need to be prepared.

Steve

From: Tom Hamilton Sent: Monday, July 11, 2011 1:38 PM To: David Penning; Stephen Marr Subject: Quality Field Personnel

During our discussions last week about the makeup of the field quality organization, I understood that there was agreement regarding the provision of a state based team consisting of a quality manager, an OQ coordinator, and quality auditors for coatings and welding, and one for other pipelining tasks.

I think it would be prudent to add to that list an auditor for NDE, in light of our intentions to have the NDE contractor report directly to the prime Contractor.

Your thoughts?

Tom

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