David Blee

Henry-Jacques Neau is here to offer a business NGO perspective. Henry-Jacques you have the challenge of following three excellent speakers while standing before lunch, I want to remind you. But I think you're up to the task. I think the great author Truman Capote once said life was two good acts followed by a very bad third act. But Henry-Jacques appears up to the task.

He's on the third leg of his career. The first was 25 years in the French Navy where he was with the nuclear unit there and he served with distinction as a commander. His assignments included the NATO Naval Command Center and as liaison officer to the British Royal Navy. Following his tenure with the French Navy he joined the Arriva where he had a career for over 13 years in the transport and backend groups in a variety of very challenging and rising assignments.

During that time he got involved with the World Nuclear Transport Institute, WNTI, and has risen from a lowly board member to now the supreme secretary general of the organization. I've had a great pleasure to work with Henry-Jacques as my co-chair for the industry group and it's been a great pleasure. I've learned not to call him on Mondays and Fridays and it's worked out very well since then.

I had the great pleasure of meeting a couple members of his family last night, his wife and daughter and I said to his wife, what is the one thing I should say about your husband tomorrow? And of course I asked your daughter. Your daughter was speechless so obviously she holds in supreme perspective, but his wife said, just say that he is very committed to whatever he does.

That is true, he is very committed to what he does, he's very committed to this cause and very committed to his work at WNTI. So it is a great pleasure to welcome my co-chair for the industry alliance and again secretary general of the World Nuclear Transport Institute to offer a perspective and his crystal ball for the future. Welcome.

Henry-Jacques Neau.
Thank you, Dave for this very nice introduction. I am really honored to be part today of the opening plenary session at this 17th PATRAM symposium here in San Francisco. For many reasons, but the most important one is to be part of this today important transport community gathering. And great thanks to the PATRAM organizers. Thank you, Ken.

Before approaching transport with you I would like first to pay tribute to our friend, Michelle …stein, who has suddenly passed away earlier this month when he was on vacation with his family in the French Provence. Michelle had been

involved in the PATRAM organization for a very long time and committed to the PATRAM success for many years from the early 90s. Michelle had been for a long time and was still involved in the WNTI life first as an advisory committee member then as a board director for several years and until recently as a WNTI consultant. Supporting WNTI in the PATRAM preparation he had co-signed a few weeks ago a paper for this symposium. Michelle had retired from TN International on the first of July this year after more than 20 years dedicated to the excellence of the transport industry. We will greatly miss him and at this moment our thoughts are for his wife and his children.

The World Nuclear Transport Institute known a name WNTI is an industry organization which is now 15 years old. Since it was created by International Nuclear Services, Ltd. of the U.K., Areva International from France and the Federation of Electric Power Companies of Japan to represent the collective interests of the nuclear transport industry. WNTI has grown to around 50 member companies drawn from the wide range of industry sectors including mines, fuel producers and manufacturers, major utility, package designers, package producers and transport companies. WNTI as observer, conservative status in the main U.N. bodies regulating the nuclear transport activities. Of course, the International Atomic Energy Agency, the IAEA, the International Maritime Organization, the IMO, the International Civil Aviation Organization, the IKO and the U.N. Committee on the Transport of Dangerous Goods, UNSCTDG.

The relationship between the WNTI and PATRAM has gone from frank to strengths over the years. As WNTI has been actively involved in the preparation of the … symposia which of course a terminating point in 2010 when the WNTI supported the U.K. Department of Transport in the organization of the previous symposium in London. For PATRAM 2013, the WNTI was very pleased to be invited to co-chair and participate in several key committees. And we worked hard in WNTI to ensure PATRAM 2013 will deliver a great vintage.

Let's start first with a bit of transport context. My initial key point, I know most of you are convinced is that in any nuclear energy linked project either for power or for isotope related activity, transport has to be considered really first with high priority and from the very beginning. Without the safe, secure and efficient transport of radioactive materials, any project development of any sort from mining to decommissioning cannot take place. No transport, no nuclear energy.

For many years I have to say I have attended several nuclear energy conferences, and surprisingly I have several times to wait to the second or even the third day to hear for the first time the word transport pronounced. My second point is that nuclear transports are the only nuclear related activities which take place in the public domain. Which means we cannot carry out these transports activity without paying a lot of attention to public perception.

There is a higher responsibility and it is vital for all stakeholders in nuclear transport operations, authorities and industries to disseminate sound and unbiased information. Industry authorities should play a respective part in dispelling exaggerated perceptions of the risk in the minds of the public, of the media and of the politicians. WNTI plays an important role in this activity and for more evidences I invite you to visit our WNTI stand here, booth 219.

Where are we today in the nuclear transport area? Transport operators have for many decades enjoyed a safety and security record second to none. Thanks first to a stringent regulatory regime maintained under continuous review with the benefit of information sharing between industry and the regulatory bodies. But thanks also to the industry as a whole and accumulated experience. Regulatory developments must integrate the industry experience feedback and lessons learned.

The first goal of a regulation is to be efficiently applicable. This remains of the utmost importance and the WNTI industry members with their operational experience appreciates the collaboration with the regulators including competent authorities. Safety and security have always been given the highest importance by the nuclear transport industry. As industry expands and diversifies and as new entrants emerge in the future it is important that regulatory safety

and security developments are enforced and are complied with to ensure that the safety record is maintained.

How can we maintain together, regulators and industry, these safety and security records in a changing world facing new challenges? WNTI encourages and facilitates the development and use by the industry of good practices which are the outcome of 50 years of safe and secure operations. Education and training are very important to avoid locally national variations and to allow harmonization between national regulations. Harmonization of the regulations is an efficient way to avoid extra administrative burdens for shippers and operators which have no safety significance. Harmonization of the regulations is also a way to prevent the denials and the delays of shipments which operators are still facing in some places around the world.

The current IAEA safety and security policy framework can be successfully implemented by the nuclear transport industry provided that the stable and ready approach is maintained to ensure viable balance between regulatory requirements, operational efficiency and practicability without imposing unnecessary operational and financial burdens on the transport industry in response to questionable political and media concerns.

The shape of the transportation future. Several challenging issues are ahead of us. Facilitating compliance and best practices in the transport industry is one of the first key challenges. The regulators and the competent authorities should work more and more together with the industry to seek and implement actions to facilitate compliance. Over the past year WNTI has increased its emphasis on this issue.

First topic: regulations. The style of some regulatory documents has to be improved rather than the content in order to make it simpler, more readily understood, more user-friendly, appropriate and fit for purpose. The experience of industry companies who have to implement the regulations is clearly important to achieve this objective. And WNTI has initiated work on this topic.

Second area: training. This need extends over all the stakeholders in the transport chain and this should associate the regulators and see competent authorities who set the requirements based on the IAEA regulations, on the design of packages and equipment but also the transport operators and the inspection resources to check compliance.

Workshop. WNTI has organized a series of workshops over the past two years in various countries to bring together a wide range of stakeholders including regional competent authorities, governmental bodies and industry

representatives to improve the understanding of the regulatory requirements, and how they should be implemented particularly in areas where the nuclear transport industry is new or developing rapidly in order to discuss common interests, share experiences and promote best practice. It has been recognized by participants as very successful. We have been I Namibia, in Russia, in Kazakhstan, in China. For your information the next WNTI workshop on the transport regulations will take place in the Caribbean region in Panama City, mid-October.

Another key topic which is really of high interest for all of us: transport security. The adequacy of security arrangements is as we know a matter completed but just for a dedicated time, at a dedicated place, for a dedicated material. So it is important to rely on the realistic assessment of the threat and its potential consequences integrating the refractory characteristics of the materials, the robust package designs and the operating practice and past performance of the nuclear transport industry. It has to differentiate real security risks, their reason, diversions, theft, from public … risk.

In terms of security requirements, it remains important to rely on the graded approach which has been recognized by the IAEA security regime. The different types of materials with different sensitivities and attractiveness do not require the same security arrangements. For backend transports various kinds of radioactive

waste are generated from nuclear power and fuel cycle facilities. These materials have to be treated, stored and eventually sent to a repository site. Transport of waste between the various cycle stages is crucial for the system-able utilization of nuclear energy and has to cope with these new issues.

The first one is the characterization of waste. This includes techniques and metals to classify waste. Large object is an issue, slight contaminated large objects, example given of course, …steam generators. They cannot be packed.

Dual use cask, important. We are facing transportation storage casks for spent nuclear fuels including the very long term storage of spent fuel. Also fissile exceptions, new fissile exceptions provision of the revised SSR-6.

For frontend transports, most of the transport routes and operational schemes for uranium ore complicated. Starting all transiting through newly involved countries in the nuclear energy operations and markets. Bringing round the same table, these regional transports take orders to share regulatory information and industry good practices is an effective way to facilitate the nuclear energy development and operations. WNTI has successfully done and organized such events over the past two years as previously mentioned.

So, in terms of confusion, a few words. Transport has to be considered with high priority from the very beginning of a nuclear energy related project. From a nuclear energy business perspective, transport is not a kind of second class, sub-contracted, logistical activity of minor importance. It is a key supporting activity. Please, for those who are not only transporters, as Jack mentioned previously, don't cut the corners on the transport topic.

Industry and regulators including competent authorities have to work more and more together. Not so much in a vertical relation, but in a cooperative building spirit. Compliance to the regulation has to be facilitated. Training, education and workshops are very good opportunities for information sharing between the transport stakeholders. Regulation must be stable and applicable and revised when safety or operational significance and improvement are there. So transports have to take place and to be done. Of course I have heard from … the safest and most security transport is the one which doesn't take place. Please, we are not to stick to that kind of quote. Additional administrative burdens and operational complication with their financial consequences for no safety or security benefits must be dispelled.

Industry good practice represents the outcome of 50 years of safe and secure transport operations. When they can be referenced for new operators they're ever so to be considered and supported by regulators as a way to improve the

harmonization of the regulations and to the degree the denial of shipments. I am just happy that the U.S. DOE has worked on its frontend transport regulation in relying on the WNTI UOC transport good practice.

Ladies and gentlemen, thank you and I wish you a successful PATRAM.

David Blee.

Thank you very much. For future note for you Rick, we didn't have the time for any of our speakers and they came as a pinpoint landing today. It's really an outstanding panel. I guess the question I had here for Henry-Jacques was, you talked about harmonization and you mentioned the local variation in regulation. Could you give an example of how that's impacting in terms of a case study and how that's impacting negatively I guess, adversely.

Henry-Jacques Neau.

Oh yes, David. I will quickly refer to three different examples which have been experienced by our WNTI operators over the past recent years.

The first one is related to road transport. In the southern African region we have to know that several mines of uranium are on the eastern part of Africa when the only harbor which accepts this material is, of course, in Namibia, Walvis Bay on the west coast. So you have with road transport, to cross all the Africa in very

difficult conditions. And one example of local variation has been for one of our WNTI operators arriving in a first country. He has been told a gentleman for security reasons you have to transit in our country during daytime. Okay, we adapt. And then we arrive at the next border when we have been told a gentleman for security reasons you have to cross our country by nighttime. So our operator has been quite lucky because that year we were alternating daytime and nighttime so at the border it was not too much of a problem. But nevertheless national variation which may create problems.

Another example has taken place recently at sea when we were shipping containers of class 7 radioactive materials onboard a ship. So of course by discretion I will not quote the countries and ports involved but the first port recommended that our class 7 containers had to be shipped on deck. Okay, we can arrange that. But the problem is the second port where the ship had to stop and instructed our WNTI operator that it was important that the containers were shipped in the hold. When you have to stop in the two harbors, not an easy game. So finally our operators sent a team for explaining and educating the port authorities and finally we have been successful in making the two port visits without changing the container arrangements.

And the third example is related to rail transport where between country A and country B, country A accept rail transport of containers with double stacking of

UOC drums within the container but unfortunately the next country doesn't accept double stacking and requires simple stacking of the drums. So as a result we apply just simple stacking, but which costs a lot of money. We have to transport twice. We need twice more containers and this is kind of practical operational consequences of local variation the industry is facing right now.

David Blee.
You also mentioned realistic assessment of threats. Is that more of an issue with the IAEA in your opinion or is that local harmonization?

Henry-Jacques Neau.
Yes. When I have been quoting my southern African story a few seconds ago, this is example. Finally one country imposes you to transit daytime and for the same reasons the neighboring country tells you okay, please transport at nighttime when you know the quality of roads in this part of the world, I am sure when the second country made this threat assessment, he has not at all integrated also the safety concern.

And another example, we had around the world finally you will see transport concentrate of uranium transport which have been escorted and monitored with very high level of security forces. Finally I don't believe it was for security reasons because we are, and there is a control, a very responsible authorities. If

there had there been any security risks, security threats, this is sure we would not have been allowed to transport. That's a point. But maybe public order and sometimes you are facing the consequences of mixing up together real security risks from public disorder risk. And it has high consequences because we know what the stuff is within the containers. This is clear. But the public will read newspapers, who are watching TV, who see these containers. They don't know really what is inside. But what is sure they see several hundred of security forces which are taking care of the shipment and it is a worrying picture which doesn't facilitate business which is just reactivating denial threats. Because after try to find public port authorities who are happy to accept your stuff, all of that is creating a kind of flute where it is very difficult to extract from. And of course all of that has a huge cost for industry for all of us because industry is more and more paying the security forces services so it is really a very important point at stake right now.

David Blee.

For the whole panel. We've heard some perspectives, obviously your colleagues here, and if you had to describe the state of the industry today, starting with you Dave, and your choices were changing, ever changing, a journey not a destination, challenged or strong, or a combination thereof. How would you sum up the current state of the transport of packaging and materials industry from your perspective?

David Huizenga.

I don't remember which choices you gave me, but I guess I would suggest that we have done a good job and I would probably take Jack's suggestion and retract my statement about how you got in and welcome more of the press people in. Because in a sense I do think that we do have a good story to tell and we probably need to do a better job of that.

Pil-Soo Hahn.

The major approach we can take for this situation is to have a kind of harmonization among different organizations like the IAEA and as I mentioned I am … So that is the first approach we need to do. And then the second would be in the process of implementation of the existing regulations, but there is always difficulty existing in the real application as Jack pointed out. We can just provide some of the training courses for the member states and in dealing with such kind of situations through the TC program.

Jack Edlow.

Thank you, David. Knowing me as you do, you probably anticipate that my view is it's a journey not a destination. Life is a journey and not a destination and we all are traveling together along that path. Sometimes we're together more, sometimes we're together less. But we're all on a journey. While we don't know

what our final destination is, clearly we know that we are in the business of moving materials safely and securely and things change. Things change very rapidly sometimes. We've seen changes in the power industry with TMI and Chernobyl and Fukushima. It hasn't affected transport all that much but from time to time on shipments we have an earthquake or we have an interception by FARC that requires us to change, and there are accidents and there are storms.

I remember back in 2001 when Dave and I co-chaired Chicago PATRAM, we got home but many of the PATRAM people didn't get home because of 9/11. 9/11 happened just at the time of that conference. And I remember the morning of 9/11 when Franchon Oshonowa of my staff. Franchon, I don't know if you're in the room at the moment. She came running into me in the morning and she said, something's going on in New York and we ran to the TV. and we watched the second plane hit that tower and we knew that things were very bad that day.

Edlow International had about 50 trucks moving in the United States that morning. I looked at my staff and I said nobody goes home until we know where they all are. And they have to be at safe havens. It took us until about three or four in the afternoon until we had all of those trucks contacted and parked at safe havens around the country. You have to be ready for change. So, it is a

journey. You have to be ready because the roads get washed out sometimes and things happen, but that's what makes this group so good, David, because they're all ready to meet these changes as life comes along. As long as we stick together, we'll be there.

David Blee.
State of the industry, Henry-Jacques.

Henry-Jacques Neau.
I will stick to Jack's thoughts, but you will have mine in France now, will be the change. For me it is a very exciting world. Transport of radioactive material is a very exciting world and I am really convinced about the job industry is doing. Clearly my first point in terms of change is to say the good point has not changed, the fact that we have highly impressive record in our operation.

Where sometime I am a bit upset is to see finally the environment is changing due to media pressure, political interest, and it creates big issues for us in implementing our job. We are relying on very good, very adapted regulations set up by competent authorities, international regulators. They have done a tremendous job.

In addition to that, you have in the transport industry player who are also very responsible industries and even putting together great authorities, responsible industries and sometimes you are paralyzed still by some other interests which don't bring so much to the nuclear energy development. And so we have to remain strong on that. Don't leave the place to media interest, also sometime political interest. It would be my view.

David Blee.

And maybe the last question for the panel is, again, looking ahead for the future what is the key test between now and the next PATRAM that is on the horizon, maybe operating from your sphere. For example, Dave, is it for you completion of all the WHIP shipments. What is the next hurdle, big test, as you see it within your sphere that might be transportation related? Is it a new EIS for foreign research reactor materials? What's the test ahead in this arena?

David Huizenga.

I don't think there's any specific issue. We've got a number of ongoing missions and they're pretty well defined at this point. There are some pockets of material around the world that we're also interested in bringing back home, either U.S. origin or non-U.S. origin material that we think could be more securely stored at home in the U.S. We'll be focused on those efforts I'm sure for the next three and probably more than that years.

Pil-Soo Hahn.

I can say in the kind of routine way to improve the current situation and IAEA can keep continuing for the improvement of the current regulations. But on the other hand if we look at some kind of emergency situation then who is going to make the final decision? Is it the technical group in terms of only the transportation related regulations and it can be applied to other areas in nuclear. Who is going to make the final decision? It's the politicians sometimes, even the technical terms. So we need to approach more, as Jack pointed out, to the political side to understand better about the nuclear related activities.

When we intend to make a communication with the general public in an emergency situation, what kind of language you are using. We are using our language. And it cannot be transferrable to the general public so we need to be well prepared to have better communication with the general public.

Jack Edlow.

Our big challenge for the next three years?

David Blee.

Well, not for you personally.

Jack Edlow.

I was going to say get up every morning.

I think the challenge is to keep the standards high but to tell people about it. I think you have to get over your fear. I think the industry has to get over their fear, to talk to other people. You are amazing. You don't realize how great you are. Think about other industries. Think about that oil well in the gulf that killed 15 people. You never killed 15 people. BP is still proud, you should be proud too.

So I think the challenge is for the industry to understand how good it is and to explain itself out loud as many times as you can. Get the Washington Post, the New York Times, the San Francisco Chronicle, get those papers in here. Get the Wall Street Journal, tell them how many billions of people benefit by what you do. Medical isotopes, industrial isotopes, power. Twenty percent of the power of the United States comes from nuclear. Why don't people know that? Why don't people know how safe it is? Why do they look at you? Why are you afraid to have them look at you? Getting over the fear is what needs to be done within three years. Everybody needs a psychiatrist.

Henry-Jacques Neau.

First, I agree with what David, Pil-Soo and Jack say. I see a key value in cooperation, sharing information, promoting good practice. These are for me,

key points and I am pleased to rely on the point made by Pil-Soo which is to say we have to pay great attention to the communication. And I would add a second point, communication is not only a matter for communicators. We have great engineers who are very good at communicating and several of our members in the WNTI world have always in crisis time I would like to really welcome this international practice I have in mind. But in a crisis center you have not only media expert communication experience, you have also engineers which are there to prepare the response from a technical expertise to an understandable language for the public. And it's a very good practice I am happy to welcome.