Interview Summary Form

Interview Details

Interviewee Name:	**Charlie Henry**	Date:	**10/13/2010**	Time:	**1:30pm**
Interviewee Title:	**NOAA SSC**	Interviewee Job Location	**Houma/Robert, LA**		
Interviewer Name(s):	**Team**	Interview Location:	**New Orleans, LA**		

Interview Questions

	Initial Question1:	What was your job/role and how did it evolve (if at all) during the DEEPWATER HORIZON Incident?
Focus Area:	**Question 1:**	**Please describe your involvement with the ACP process.**
Focus Area:	**Question 2:**	**Were ESAs identified in the ACPs? Were they adequately boomed? Were the ESAs that were pre-identified protected? How did the protection strategy work?**
Focus Area:	**Question 3:**	**What was the decision making process for dispersants (surface and subsurface) as relates to NRT?**
Focus Area:	**Question 4:**	**Can you respond to this-perception by some that the RRT and NRT was nullified when quantity and toxicity became an issue at the political level?**
Focus Area:	**Question 5:**	**What transpired related to quantification? Worst case discharge numbers? Were the numbers influenced by political pressures?**
Focus Area:	**Question 6:**	**How was In-Situ Burning handled? Was a burning agent used?**
Focus Area:	**Question 7:**	**Long term sustainability of personnel, were the right people and training involved? What were the effects of long term response on folks?**
	Final Question 1:	What were the top 2 "best practice(s)" during this incident, from your perspective?
	Final Question 2:	What do you assess to be the top 2 "areas needing improvement" (or downright "failures") from your perspective, and do you have any related recommendations regarding these areas?
	Final Question 3:	Is there anything else we should know?
	Final Question 4:	Who else should we interview?

What was your role during the DWH event and how did it evolve, if at all?

- Mr. Henry's normal position is the NOAA Scientific Support Coordinator (SSC) for the USCG 8th District (Brownsville, TX to Apalachicola, FL). All areas impacted by the DWH event were in his primary area of responsibility.
- He has been in this role for 13 years.
- He provides technical support or lead scientific support to the USCG or EPA FOSC.
- His initial call was early on April 21st (at 2:24am) when he was notified by MSU Morgan City that there was an incident offshore that had lots of unknowns. Call was a heads up to start working issues and he quickly drove to Morgan City to link up with CAPT Paradis, the initial FOSC for the response. He worked with CAPT Paradis as SSC through Friday (this was when the Houma ICP was being stood up).
- When the UAC was stood up Saturday in Robert, LA, he passed SSC role to a colleague and went to be the SSC at the UAC. Served in this position through October 13th.
- He also coordinated the NOAA support under the UAC level.

- He rotated with Steve Lehmann, the SSC out of Boston. Mr. Lehmann would rotate in regularly, but Mr. Henry did not get to leave every time he rotated in.

Please describe your involvement with the ACP process.

- This is a large region. Each key COTP zone has an ACP, and Mr. Henry has been involved to some extent in all ACPs in the Gulf region as the SSC for the last 13 years.
- There is a contingency planning specialist that helps cover the Area Committee meetings, but Mr. Henry attends all meetings that are related to alternative response techniques.
- He serves as the NOAA rep on the RRT for Region 6.

Identification of ESAs and were they adequately boomed? Were the ESAs that were pre-identified protected? How did the protection strategy work?

- ESAs are a part of each plan in the coastal zones.
- One of the primary tools used to develop the ESAs is the Environmental Sensitivity Index (ESI) which helps to identify what natural resources may be at risk, along with if endangered species may be at risk, wildlife refugees, etc.
- Mr. Henry dealt with area issues vs. being in the field to adapt response plans to this unique event.
- Generally use hard atlases, except in Mobile, where they had digital maps. He ensures that those files are available to those that were setting up the databases.
- He is confident that maps were used in the development of tactics although he was not directly involved. All the players involved in the decision have used the maps. The maps are commonly used in this region. The maps are used jointly with the local stakeholders, such as an incident in the Delta National Wildlife Refuge, etc. Map shows where resources are, and boom is placed based on local engagement, as they know the most about the ESAs.

What was the decision making process for dispersants (surface and subsurface) as relates to NRT?

- Surface
    - Initial posture taken was that we already have pre-authorization for the FOSC through RRT4 and RRT6 for use of surface dispersants.
    - They are authorized to make decision within the RRT provided guidelines.
    - Many key RRT members were integrated into the Unified Command.
    - He didn't remember an RRT call on surface dispersants; they just followed the rules and guidelines.
- Subsurface
    - Proposal put on the table by BP was based on an idea or recommendation from a retired dispersant developer (Jerry Cantavery). It had been tested and used on a spill long ago (incident down off the delta). This was for the offshore application.
    - We looked at the concept, considered what the receptors might be, and did a trade-off analysis although nothing is better than containing the source.
    - We considered the deepwater impacts to species and unknown deepwater impact along side the benefits to saving near shore areas.
    - We extended this to larger group to discuss via conference call.
    - We looked at what movement of a dispersed plume would look like, where would it go if effectively dispersed at that level, but there was limited data available (from a Norway testing of deepwater dispersant use). We also reached out to other modelers to come up with hypothesis of how deepwater plume would move.

- As a group we identified the need to establish a monitoring program, to be able to measure if the surface tradeoff was holding true. This included monitoring/measuring for hypoxia conditions and the dissolved oxygen levels.
- RRT 6 was brought into the discussion along with the State of LA (as they were the primary state impacted). The RRT never came to a decision, though the Federal members had come to consensus, there were still state concerns.
- Data was all fed to the FOSC and up the chain of command; the situation was driven by other issues, and although there was consensus, but there was never a formal RRT vote.
- NRT was activated and involved in daily conference calls. He sat in on that with RADM Landry and others depending on what was happening.
- Discussions also included a close evaluation of the pre-authorization document and it was determined that it was not limited to surface application only. This discussion happened with the FOSC at the UAC.
- EPA has "veto" power, if they say no, lose RRT authority. EPA did weigh in on monitoring, use of product, and provided direction to FOSC on how it should be used.

Were you aware of the Administrative directive to stop application of dispersants (UAC did stop use for 4 days)?

- He was not aware of the directive that came in before the use of subsurface dispersants.
- There were a few different directives that came down from EPA. Some documented what was required for use of dispersants, monitoring program, etc.
- The response at that stage was very complicated.

Can you respond to the perception by some that the RRT and NRT were nullified when quantity and toxicity became an issue at the political level?

- Believe the RRT system works. NRT provided overall policy guidance, and the RRT, working with local stakeholders at the regional level, could make the best decisions when decisions only impacted that region. They know the history of activities within that region, threats in that region based on past experience, etc.
- Policy guidance was directly given from above, which short-circuited the RRT from having a discussion. It seemed that they felt they were receiving direction from their bosses, and it undercut their ability to act on their own.
- During that phase of the response, from the NOAA's (Dept of Commerce's) perspective, Mr. Henry felt he only received endorsement and support from his organization's chain of command.

Should the AC have already looked at using that volume of dispersants, with relation to the WCD?

- General tactics are different than with deepwater.
- Goal is always source control and control of the flow closest to the source. We use dispersants to attack oil that got away from source or escaped before it was contained.
- What challenged us was that the oil was being released as a plume at a depth of 5000ft, by the time oil droplets reached the surface; you had a large footprint, but could not position mechanical recovery tools as the footprint was too large vs. the available assets.
- Prior to this event, never envisioned dispersants as the primary tool.

What transpired related to quantification? Worst case discharge (WCD) numbers? Were the numbers influenced by political pressures?

- Initially we had the explosion and the riser was still connected to the seafloor. There was a large fire on the oil rig itself.

- From Monday night to the rig sinking on Thursday, there were discussions between USCG FOSC, BP, and MMS on potential WCD numbers. They were in the range of 60-100K+ barrels per day (bpd), but the number used in WCD was the 60K range.
- When the rig sank, we didn't know anything until sometime Friday as the ROVs were pulled away. Sediment was kicked up everywhere and there was no visibility.
- The next day we had overflights report oil coming to surface as droplets, creating sheens at the surface.
- It took awhile for the ROVs to be able to search the long riser and look for leaks. At this point we had no idea what was being released as it is hard to quantify oil on the surface. In some places it was thin, others it had convalesced and was thicker.
- When we got to the point that the video showed what was escaping the riser (and the riser looked to be kinked over) we could not guess what was coming out; we were only responding to what was on the surface.
- We were postured to have resources to respond to the WCD as that is how you work on an unknown.
- He didn't know where the 1K bpd number came from.
- From the response standpoint, we were not thinking about the WCD number, just trying to mobilize as many resources as we could.
- Thought that if dispersants were effectively applied, the 1K bpd number was incorrect or dispersants were not working.
- On Monday, he asked team members to provide best guess based on size of sheen, and the known factors. He was provided a concerted estimate that said it was at least 5K bpd. The number was put on the table to be not what we thought was coming out, but to put pressure on BP or MMS to come up with a better estimate.
- Things didn't change, and then the 5K bpd number was released, giving NOAA credit, but within right context/caveats, and then it came out differently when repeated, no caveats mentioned.
- By the time they used the video to develop WCD numbers, it was weeks later.
- He would estimate, even with the data they had, that it was off by a factor of 2.
- In hindsight, if we would have started with those levels, they may not have changed or gone much higher.
- Flow rates used early on had a good impact and effect on the net spill.
- We also had to time tests/sampling for when we could see a change in the surface to determine if the application of dispersants was working.

What discussion occurred on the release of WCD to the public?

- Mr. Henry was never at a meeting that said not to discuss or release WCD numbers.
- He does not remember being asked in press conference what the WCD was, but said that they were responding to the WCD.
- The NOAA group in Seattle got their numbers from Mr. Henry relaying numbers that MMS had mentioned in meetings he attended.

Were you involved in the Flow Rate Technical Group (FRTG) initiation?

- There was a researcher from Pittsburgh made a comment when looking at particle size of the oil. Shortly after that, there was an Interagency Solutions Group and the FRTG was established.

Field observations mentioned that the flow rate could have been 1K or 10K bpd, were you aware of that?

- He wasn't involved in the 1K bpd rate. He was asked, and responded that "he didn't know". He was not aware of what flow rate number was being used when he made the comment based on field observations and discussions with his team in Seattle.
- He felt there was not enough data to make any determination.
- He was not involved in any meetings that put the pressure on for the release a WCD number.
- We did not know, and don't think anyone knew, how much oil was coming to the surface at that point.

- In hindsight, we were responding not knowing what was being released, and ratio of effectiveness was 1 to 2.
- BP was involved in discussions where everyone was providing their opinion on the estimate of what was being released. In general, there was fairly open discussion at that time. Everyone had an opinion.

WCD scenario indicated it was between 60-100K bpd?
- There were several numbers, but the higher number was not believed to be valid by MMS.
- He did not know who generated it.
- Numbers were being discussed before the rig actually sank, as is typical in the initial chaos of an event.

Quantification numbers were reported in the press, yet felt responding to WCD scenario, what was being used as WCD scenario?
- We responded and could never get enough equipment to contain it.
- He is used to working in situations where the amount of oil is uncertain. In those situations, we look at what is on the surface, what is the size of the slick, and what containment is needed to make an impact to the oil? We never reached that because of how the oil came to the surface. We were looking at size more than thickness.

Changing quantification numbers on TV, why was no effort made to tell the public what the WCD was and that you were responding according to a WCD?
- Mr. Henry could not answer.
- He was dealing with threats of where the oil could move. He did not recall getting that as a question, and his opinion he didn't know, he was dealing with it as an uncertainty, and pulling assets to deal with the size of the spill.

During the period when 1K bpd was on the table and you thought that was low, decided to up the figure, was there resistance or discussion with BP to keep the rate at the 1K bpd number?
- The 5K bpd number was created to try to get BP (as the RP) to provide additional resources. We thought that the burden would be on them to use their science and knowledge to come up with a better estimate; even though the Federal government was fully engaged.
- They would make comments that they though it was between 1-6K bpd; this was in open discussion. We never intended to have the number released; it was meant to generate BP action. The number was used in a press conference, by the USCG, and we were never consulted to ask if that number could/should be released.
- Number was verbally provided to RADM Landry. When she stated it, she said that NOAA estimates that the spill volume was at least 5K (or did she say "at most"). Release was not what number was intended for.

Did the RRT meet to discuss in-situ burning (ISB)?
- Mr. Henry does not recall that we ever met to discuss in-situ burning, but we did have a pre-authorization plan for offshore ISB, although some areas were exempted.

Any discussions with the NRT for anything other than the dispersant issue?
- The normal NRT representatives were not representing the NRT, it was cabinet or secretary level reps.
- NRT meetings were more informative to provide information from field up or discuss items of concern from the top down.
- It was not how we would normally perform as an NRT or RRT, it was more communications based.

Were any burning agents used? De-emulsifier?

- Only the initiator of the fire, flare or small amount of other materials to initiate the fire.
- Those decisions took place out of Houma.
- The initiator itself is an igniter type tool to make the fire burn hot.
- He recommend asking Al Allen from Houma about that.
- Magnesium flares may have been used.
- No de-emulsifier were used that he was aware of.

UAC was reported as delving into tactical issues, were you aware of that happening?

- He thought that overall the UAC was more strategic with the exception of subsurface dispersants.
- The FOSC was in Robert, and if an issue was brought to their attention that they needed to address, the FOSC didn't hesitate to add additional specific tactics related to the specific issues, which was the job of the FOSC.

Statement: "It is improper to incorporate RRT members as part of the response organization." What is your response?

- It is something that we discussed often internally. He, with his alternate, had two roles, one to provide direct technical support to the RRT, but when providing guidance to the RRT, he was representing the DOC and NOAA, and spoke after getting input from specialized groups, as needed. If he ever felt in position of conflict, he would ask his alternate from the team (not part of the response), to step in.
- The key thing is to maintain a separation of roles – resource trustee or agency rep role – if you fail to do that, you are not representing your agency as you should be.
- He would vet feedback through the agency whenever he was asked to provide information to the RRT.
- RRT is separate from the response. Response is being managed by the FOSC. This process has worked well over the years.
- RRT provides 2 roles:
    - Additional guidance and support to the FOSC if asked. i.e., product that needs recommendations, etc.
    - Ability to second guess and say that RRT is not happy (this rarely happens).
- Typically we are very open and discuss what we think is good or bad. RRT is also made up of numerous responding agencies (USCG, EPA, DOI, DOC/NOAA, etc.).
- When representing their agency, we reach back to our agencies to ensure we are representing their opinion to the best of our abilities.

Long term sustainability of personnel, were the right people and training involved? What were the effects of long term response on folks?

- Go back to Exxon Valdez, had very broad, strong core of responders. Parallel to OPA90 was that over that same time period, there have been market changes to oil spill response and a decline in oil spill response. Organizations have to maintain capability to respond.
- We don't have same number of people with the same amount of expertise as there have been fewer and fewer spills.
- Clearly there was a ramp up, and everything was working fine. We needed additional people, and they were learning in trial by fire.
- Do we have enough trained people to respond, can we put enough of the right people in the right positions and maintain it during the response? In looking at our own capability, we felt we would be limited. Core team brings in less experienced people to do on the job training and try to maintain the response. It results in a drain on the manpower pool, but also have trained a lot of people to fill key positions.

- In any business, always have to make the decision to continue to provide and man large response over long period of time, sometimes have to give up.
- Long days, long hours, in often hostile situations (100 degrees with 99% humidity), it is not unusual that it does drain you. We would work to try to manage that within the groups.
- One benefit of sitting at the UAC is the safety of the response. We would look at reportable accidents vs. other field events, if you look at the numbers; we were able to keep them somewhat low considering the event.
- No agency staffs spill response for a 1 in 10 or 20 year event. It is difficult to do that so as a result we didn't have the number of people early on that we needed with trained experience.

How would you train to sustain a future response?
- If we had known that the response was going to last as long as it did, we would have brought people in earlier to fill positions, conduct more orientation training, and they would go through basic, key elements, org structure, safety elements, etc.
- If we had known we would be working for 8-9 months, would have started doing a longer term training program earlier on.
- Bottom line, we have to have experience/skilled people.
- We did look at how to better enhance our response capability by looking at people in other offices that have the basic skill sets, but even they needed a bit of training to fit into the response organization.

Best Practice
- System that we use (ICS system) to form an effective company overnight with industry, government, etc. It works. At the height of the event, we had 47,000 people involved.
- Discussion (and contention) through Unified Command works to get issues vetted and identify the best way to proceed forward.
- We worked over 50 million man hours in 6 months.
- Speaking for NOAA and the resource trustee issues, they were addressed and considered.

Area for Improvement & Recommendation
- Never believe the response was outside of a Regional response – RRT 6 and RRT4. Don't remember seeing anything like the rest of the nation was impacted by the response, it only affected the people, resources, and pollution state in the region. The structure external to the region had a greater impact than it should have.
- Don't argue that based on size/volume it was a SONS, but the region was the best way to determine how to manage.
- NIC could provide guidance for looking at special issues, Jones Act, etc.
- Managing the response – it was a local response – and resulted in a nullifying effect on people in the region who do this on a daily basis.
- Got more involved as a national problem when it should have worked more regionally; this caused frustrations however the end result might have been the same.

Goal
- Goal moving from this response forward: always try to identify a way to improve upon future response events.