National Incident Commander
Deepwater Horizon Response

2100 Second Street, S.W
Washington, DC 20593-0001
Staff Symbol: NIC
Phone: (202) 372-1710
Fax: (202) 372-1933

16451
OCT 01 2010

The Honorable Edward J. Markey
Chairman, Subcommittee on Energy and Environment
2125 Rayburn House Office Building
Washington, DC 20515-6115

Dear Mr. Chairman:

This responds to your letter of July 30, 2010 in which you requested information on dispersant use in response to the Deepwater Horizon spill. It follows my preliminary response of August 20 as well as a briefing to your staff by my National Incident Command staff on September 8.

As a preliminary matter, dispersant application occurred through the following means: (1) subsurface application at the spill source, (2) surface application at the spill source by vessel, and (3) surface application in other locations by airplane (also referred to as "aerial application").

The following are specific responses to questions in your July 30, 2010 letter.

Q1. *Almost all of the exemption requests submitted by BP cite the presence of VOC emissions and large surface oil slicks as being reason for applying for an exemption to the May 26 Directive. Yet the Directive clearly states that an exemption should only be granted in "rare" circumstances. Why does the USCG believe that the presence of oil and VOCs are rare circumstances during a leak that releases tens of thousands of barrels of oil per day?*

A. The Directive did not clearly explain the distinction between using dispersants as a mitigation tool to stop the spread of oil in the Gulf, and using it to protect human health and safety.

Addendum 3 to the Directive, dated May 26, established the objective of minimizing dispersant use and the guidance to only grant exemptions in rare circumstances was the method to achieve this. However, dispersant use decisions were dictated by operational realities such as whether the presence of Volatile Organic Compounds (VOCs) and oil on the surface was a "rare" event primarily governed by the effectiveness of wellhead containment, subsurface dispersant use, sea state and weather conditions. Additionally, when Addendum 3 was written, flow rate estimates were between 12,500 and 21,500 barrels per day based on an interim report from the Flow Rate Technical Group, with earlier less technical estimates being significantly lower. Estimates were later increased and ranged between 35,000 and 60,000 barrels per day explaining the VOC and oil conditions encountered.

Dispersants were only one of several response tools used to deal with the spill. The May 26 Directive was intended to focus BP's efforts on using the full range of available tools to respond to the spill, including skimming, booming, and *in situ* burning, and in support of ensuring worker health and safety at the critical source control site. It is important to note that on May 26, BP was actively engaged in the Top Kill operation and simultaneously drilling the relief well. The goal of dispersants was to be used as a response tool and also as a safety tool to ensure critical source control operations were not disrupted. The overall goal of the Directive was to decrease the use of surface dispersants as a response tool, and to decrease the overall volume use of dispersants thru sub-surface injection making their use as a surface response tool a rare event. In large part, I believe the Directive accomplished this goal.

What the Directive did not do was to limit the use of dispersants as a tool to protect human health and safety, and it would have been unwise to do so. A Federal On-Scene Coordinator (FOSC) is guided both by common sense and the plain letter of the National Contingency Plan (NCP) to make safety of human life the top priority during every response action; the NCP makes the FOSC responsible for the safety of all persons responding to a spill.

The difficult circumstance you identified in your letter—the balance a FOSC must strike between limiting the use of dispersants and sending responders closer to a hazardous environment—is a difficult one, but one that must always be struck in favor of human health and safety.

Surface application of dispersants in other locations by airplane was only used when other recovery methods were insufficient or ineffective. Surface application of dispersants at the spill source by vessel was prompted by VOC levels that posed a health and safety threat to response workers. The rare circumstances your question appears to address, concerning the May 26 Directive, was an intentional use of the general meaning of the terminology – simply stated, it is the Coast Guard's chief objective to minimize the consequences of pollution and to protect our natural environmental and economic interest. The May 26 Directive granted exceptions on rare circumstances; the Directive never suggested that the presence of oil and VOCs were rare circumstances.

Q2. *The exemption requests often also discuss the inadequacy of skimming operations as a rationale for the use of dispersants. Wouldn't skimming always be inadequate to fully combat such a large oil leak? Why are the inadequacies associated with skimming considered to be "rare" by the USCG?*

A. Skimmers are effective tools for responding to oil spills. However, like every tool, they have windows of effectiveness within which they operate well, and outside of which their effectiveness drops off significantly.

Skimming as well as *in situ* burning are limited by weather conditions, location of resources, and the size and density of the oil slick. In cases where the weather, availability of resources, size or density of oil do not accommodate other means of spill cleanup and mitigation, dispersants become the only viable option to ensure the oil does not reach environmentally sensitive areas. Skimming, booming, and *in situ* burning played major roles in Deepwater Horizon cleanup efforts accounting for millions of gallons of oil either burned or collected. Dispersants are a tool used when and where appropriate.

Q3. *In addition to the requests submitted by BP, from June 8-July 9 almost daily requests for exemptions to the May 26th Directive were submitted by Houma Unified Command, which consists of USCG and other personnel and reports to the Federal On Scene Coordinator. In most of the letters submitted by Houma Unified Command, the volume of dispersant requested was 3-6 times higher than the volume requested by BP. In each instance the request was approved by the Federal On Scene Coordinator, though at times the amount requested was modified.*

Q.3.a. *What is the relationship between BP and Houma Unified Command?*

A. BP is a member of the Houma Unified Command (HUC) which, together with a State of Louisiana On-Scene Coordinator, was led by a Coast Guard Federal On-Scene Coordinator Representative (FOSCR). BP is also a member of the Unified Area Command (UAC), led by a Coast Guard FOSC who oversaw operations of the HUC.

Q.3.b. *What is the relationship between the Federal On Scene Coordinator (USCG) and Houma Unified Command?*

A. The HUC was one of four Incident Command Posts (ICP) that reported to the Unified Area Command (UAC) located in New Orleans, LA. The FOSC, as the lead of the UAC, oversees response policy, critical resource allocation, and general response activities of the HUC at the operational level.

Q.3.c. *Does the fact that Houma Unified Command (which consists of USCG and other personnel),repeatedly requested and received permission from <u>other</u> USCG personnel to deviate from the USCG's own May 26 directive mean that the USCG effectively decided to ignore or simply not enforce its own directive? Why or why not?*

A. Both the FOSC and HUC were committed to reducing use of dispersants to the minimum amount necessary as indicated in Addendum 3 to the Directive. The communications between Coast Guard personnel at the HUC and UAC regarding dispersant use is evidence of the existence of a healthy command and control structure envisioned by the NCP.

The local experts working in the HUC advised the UAC about threats which were presented as oil approached coastal areas, and jeopardized sensitive marsh areas and beaches. Based on their expert knowledge of the area, the HUC sought and received permission from the FOSC to employ dispersant in order to protect those sensitive areas and beaches along with the health and safety of the responders.

Q.3.d. *Does the USCG Federal On Scene Coordinator take into consideration the volume of dispersant approved to be used by Houma Unified Command when approving the volume of dispersant requested by BP, and vice versa? If so, how, and if not, why not?*

A. Yes, the FOSC considered requests from both BP and the HUC when making the decision to use dispersants. In addition, the FOSC balanced the requests with the current operational conditions, the availability and feasibility of other oil spill response technology, and other factors such as worker health and safety to determine an effective course of action.

Q.4 *In 48 days, 74 requests for exemptions to the May 26 Directive were made by either BP, Houma Unified Command, or both. In all but 10 cases, the USCG approved the exemption without modifying the daily maximum quantities of dispersant use requested. In one of the 10 modifications occurring on June 26, the USCG actually increased the maximum dispersant that was approved for use by Houma Unified Command from its request of 30,600 gallons to 43,000 gallons.*

Q.4.a. *How does the USCG evaluate whether the quantities of dispersant proposed are justified?*

A. Quantities of dispersant are based on the number of oil slicks, their size, and the estimated percentage of dispersible oil. Taking these factors into consideration and applying a desired dispersant to oil ratio, responders can estimate the amount of required dispersant.

Please refer to paragraph four of my letter of August 20, 2010 for additional discussion on this issue.

Q.4.b. *What criteria does the USCG use to evaluate whether the justification provided in an exemption request is sufficient to warrant an exemption?*

A. Many criteria are used to evaluate exemption requests including but not limited to the presence of dispersible oil, size of oil slicks, weather conditions, availability and feasibility of other response methods, and other factors (such as worker health and safety). In addition, specific events at the well head such as the temporary loss of containment were considered in determining if exemptions were necessary.

Exemptions were considered on a case by case basis. All exemptions were granted to make appropriate adjustments where necessary to maximize a successful response.

Q.4.c. *What communications does the USCG have with other federal agencies, such as the EPA, when evaluating these requests and approving exemptions?*

A. The FOSC relied on the advice of the EPA, National Oceanic and Atmospheric Administration (NOAA) Scientific Support Coordinator, and the Departments of Interior and Commerce as well as State representatives at the Unified Command in making dispersant use decisions during Deepwater Horizon response operations. In addition, in late May over 50 scientists, engineers and spill response practitioners from numerous organizations attended a meeting to provide input to the RRT on the use of dispersants the Deepwater Horizon response and identify possible new monitoring protocols of dispersant application.

Q.5. *From June 10 – July 3, there were 8 days where the USCG substantially reduced the requested dispersant exemption volume. For example, on June 10, Houma Unified Command requested permission to apply up to 32,000 gallons, which was reduced to 21,000 gallons by the USCG. Similarly on June 12, the request to use 38,160 gallons was reduced to 7,000 gallons by the USCG. But the next day, on June 13, Houma Unified Command requested permission and was approved to apply up to 36,000 gallons of dispersant on the surface of the Gulf.*

Q.5.a. *Why did the USCG reject the requests on June 10 and June 12, and then approve essentially the same request on June 13?*

A. Between June 10 and July 3, ICP Houma requested—and the FOSC approved—use of various volumes of dispersants. The decision to approve dispersant volumes in general, and specifically volumes different than those requested, was within the FOSC's discretion. The FOSC based dispersant volume decisions upon conditions present at the time, including: size of oil slicks, mechanical or other means for removal, weather conditions, and sea state. Any of those conditions would vary day to day, and the fact that a request was denied on one day and an identical or similar request approved on a subsequent day would be based on conditions present on each particular day.

Q.5.b. *How does the USCG determine the maximum amount of dispersant use that is justified to be used on any particular day?*

A. The UAC determined that a maximum daily application volume (calendar day) of 6,000 gallons for vessel application of surface dispersants at the spill source was appropriate unless more was required to control VOCs. The UAC made its determinations based on information it received on a daily basis from spotter aircraft (and eventually satellite imagery) about the size and trajectory of the spill and the potential for harm to sensitive areas and beaches. Potential oil targets were analyzed by size, location, and dispersible oil composition which provided a basis for the amount of dispersant needed. The overall use of dispersants was also influenced by the availability, on a given day of other response mechanisms, such as mechanical recovery or *in-situ* burns.

Q.5.c. *Does the USCG take into consideration previous approvals when deciding whether a daily exemption is to be granted? How does the presence of inclement weather factor into the process when deciding if an exemption request should be approved?*

A. The UAC issued approval based on operational requirements each day. When issuing approvals, the UAC considered the application of other technology, the impact on the environment, and well-being of the human and animal population. The operational requirements of each day could be influenced by previous approvals. For example, previously approved dispersants might have reduced current operational requirements by decreasing the oil slicks. Weather conditions played an important role in all oil spill response operations. Weather could hamper mechanical recovery such as skimming, as well as *in-situ* burning. Aircraft applying dispersants also had operation limitations based on weather parameters; in some cases, dispersant applying aircraft operations were interrupted during inclement weather.

Q.6 *In several instances BP submitted advance requests for permission to apply 6,000 gallons per day of dispersant to the ocean surface for seven days, with a caveat that this limit might also be exceeded as required. The USCG approved these requests, essentially allowing BP to use as much surface dispersant as it wanted to. In fact, on June 4 and again on June 11, 16, 17, 20 and July 1 BP roughly doubled the 6,000 gallon maximum 'limit' (for example, according to materials provided by BP to Congressional staff, on June 4th, BP applied 13,701 gallons, and on June 11th BP applied 14,305 gallons).*

A. The interpretation of the BP data in question six appears to lack a key distinction; total surface dispersant use equals the amount of dispersant applied at the well site plus the amount used by aircraft to mitigate threatening oil slicks elsewhere in the Gulf. The 6,000 gallon limit was for surface application at the spill source by vessel to mitigate VOCs. According to the question, BP exceeded a 6,000 gallon cap on several occasions by roughly doubling the limit. Based upon a review of dispersant data, the 6,000 gallon limit referred to surface application at the spill source by vessel to lower VOC vapors, not necessarily the total amount of dispersant used in the Gulf of Mexico on a given day. For example, on June 11 the question claims BP exceeded the 6,000 gallon cap by over 8,000 gallons for a total of 14,305. However, the 14,305 gallons refers to the total amount used in the Gulf, accounting for the aerial application of dispersant as well as the amount used at the well site. On June 20, vessels at the well site used 4,173 gallons to suppress VOC vapors in addition to the 15,403 gallons used by aircraft targeting oil slicks in the Gulf of Mexico. As a result, total surface dispersant use for June 20 total less than 20,000 gallons.

The manipulation of the lower marine riser package on June 3 precluded the application of subsurface dispersant resulting in an increase of VOC vapors at the surface. To lower the vapor levels, BP used 13,701 gallons of dispersant at the well site. Since no aerial dispersant was deployed on June 4, the amount of dispersant used at the well site equaled the totaled amount of surface dispersant applied on the calendar day, which was 13,701.

Q.6.a. *Why did the USCG approve a request that essentially gave BP permission to use as much dispersant as it wanted to for a 7 day period?*

A. The NCP Subpart J §300.910 (d) specifically provides the FOSC with the authority to authorize the use of dispersant, when, in the judgment of the FOSC, the use of the dispersant is necessary to prevent or substantially reduce a hazard to human life. During the seven-day period in question, if the VOC levels exceeded Air Monitoring Plan limits, the FOSC authorized additional surface application of dispersants at the spill source to lower VOC levels, which would prevent or substantially reduce health hazards that threatened responders on scene.

Q.6.b. *Did the USCG take into account the actual volume of dispersants that were used when deciding if subsequent exemptions would be approved? If so, how? If not, why not?*

A. Information regarding the volume of dispersants used at the spill source was made available to the FOSC. When BP submitted weekly Source Control Surface Dispersant Plans to the FOSC, BP detailed the average daily volume of dispersants applied at the spill source for the previous period and the maximum daily application of dispersants at the spill source for the previous period.

Q.6.c. *How were decisions about volume of dispersants in excess of the maximum exception made? Did BP inform the USCG in advance of exceeding the 6,000 gallon limit on any date on which it significantly exceeded the 6,000 gallon limit that it planned to do so, and how much it would likely apply on those days? If so, did the USCG approve the use of such high volumes? Please provide all documents, including phone logs and emails, related to BP's surface application of dispersants on each day that BP significantly exceeded the 6,000 gallon limit (at minimum for its use of surface dispersants on June 1, 4, 11, 13, 14, 16, 17, 20, 21, and July1).*

In the case of surface dispersants applied at the spill source, the concentration of VOC vapors at the well site necessitated the use of dispersant above the 6,000 gallon expected maximum daily limit. Consideration to approve exemptions starts with the fundamental Coast Guard policy: our top operational priority has always been to ensure the safety and welfare of citizens and response personnel. When considering the use surface dispersant application at the spill source to protect worker health and safety, the question of the potential consequences of not implementing sufficient safety measures is also raised.

Based on an analysis of dispersant data, BP exceeded the 6,000 gallon limit of vessel-applied dispersant on three occasions, May 28, June 4, and June 7, after approval of Addendum Three on May 26. On each occasion, work around the well head interrupted oil containment efforts resulting in an increase of VOCs.

Q.6.d. *How did the USCG respond to information indicating that BP violated the already-exempted Directive by exceeding the recommended maximum daily volumes to be used?*

A. The FOSC expected BP not to exceed the 6,000 gallon daily limit. However, if hazardous conditions persisted, BP was permitted to exceed the daily limit only to mitigate risks to workers. In addition, aerial application of dispersants away from the spill site was used when mechanical recovery and *in-situ* burning were not possible due to weather and sea state.

Q.7. *BP has also contradicted information it submitted elsewhere regarding its use of surface dispersants. On June 16, BP COO Doug Suttles sent a letter to Rear Admiral James A. Watson, the Federal On Scene Commander, requesting that BP be pre-authorized to use 6,000 gallons of surface dispersant per day for June 17-23. He indicated that the maximum daily application of surface dispersant in the days preceding June 16 was 3,360 gallons on June 12. However, an examination of the amounts BP provided to Congressional recipients in its daily "Gulf of Mexico Oil Spill Response Updates" (see Table 1) indicates that on June 11, BP stated that it had applied 14,305 gallons of dispersant on the surface, on June 13, it had applied 36,000 gallons and on June 14, 10,706 gallons. On June 22, BP COO Doug Suttles sent a letter to Rear Admiral James A. Watson requesting that BP be pre-authorized to use 6,000 gallons of surface dispersant per day for June 24-30. In the letter, Mr. Suttles claimed that from June 17-21, the average daily volume applied to the surface was about 2,200 gallons with a maximum of 5,776 gallons on June 19. However, an examination of the surface dispersant totals BP provided to Congressional recipients in its daily "Gulf of Mexico Spill Response Updates" (see Table 1) indicates that on June 17, BP applied 12,423 gallons on the surface, on June 20, it applied 19,576 gallons, and on June 21, it applied 11,217 gallons. On July 5, 2010, Mr. Suttles claimed that the maximum surface dispersant*

applied from July 1-5 was 1,473 gallons, yet on July 1 BP provided an amount of 17,852 gallons to Congress.

A. Your question reflects a difference between the amounts of dispersant requested/used at the well site by vessel application to control VOC levels versus the dispersant used to mitigate oil impacts using aerial dispersant application. For example, question seven indicates BP applied 36,000 gallons of dispersant on June 13. However, Houma Unified Command correspondence to the FOSC suggested there was a request to use 36,000 gallons of aerial dispersant of which roughly 35,000 gallons was actually deployed. Data indicates BP used less than the 6,000 gallon expected limit at the well site on June 13.

Q.7.a. *How did the USCG verify the information provided to it by BP, since that information is so clearly at odds with the volumes of surface dispersants that BP has informed Congress that it used?*

A. Again, the difference in dispersant quantities reflects a difference at the well site to control VOC levels versus the dispersant used by aerial application to break up surface slicks and mitigate potential shoreline impacts. There did not appear to be any significant inconsistencies made by BP when comparing well site dispersants with well site authorizations.

Q.7.b. *Has the USCG ever attempted to verify the information provided to it by BP related to the amounts of dispersants that were actually applied? If so, please provide all such documentation. If not, why not?*

A. As part of the response effort, Coast Guard aerial observers conducted over flights monitoring BP operations at the well site. The UAC carefully monitored the aircraft tank levels to verify dispersant amounts used. Tank levels on surface vessels were recorded and checked. A response of this magnitude generates a tremendous amount of documentation. All records from this response are being forwarded to a central repository in Mandeville, Louisiana, where they are being sorted and catalogued.

Q.7.c. *Was BP providing inaccurate information to the USCG or to the Congress? If neither, then how do you account for these discrepancies?*

A. The discrepancies result from different interpretations of dispersant data. On a daily basis, BP requested and received permission from the FOSC to use dispersant to suppress VOC emissions at the well site. Simultaneously, the FOSC authorized dispersant use in other areas of the Gulf of Mexico. When tabulated, however, the distinction between the use of dispersants at the well site and other areas of the Gulf fades. Many of the daily totals discussed in this letter concern the aggregate daily use of dispersant, not just the total utilized by BP at the well site. Because the use of dispersant in the oiled areas of the Gulf is typically greater than use at the well site, it would appear that BP often exceeded the expected 6,000 gallons per day.

Q.8 *Table 1 contains daily information related to the amount of surface dispersants requested to be applied by both BP and Houma Unified Command, how much was approved by the USCG, and available information provided by BP and the Deepwater Horizon National Incident Command as to how much was actually used. As you can see, the totals do not add up, for example, on June 13, BP states that it used 36,000 gallons on the surface, but the Deepwater Horizon total cites only 13,000 gallons. What totals do the Deepwater Horizon amounts refer to? Do they include the BP totals? How do you explain the discrepancies associated with the daily reported amounts?*

A. Dispersant data on the Deepwater Horizon Unified Command website can be found in two locations. Data posted on the Deepwater Horizon website displays a running total of both surface and subsurface dispersant use during all Deepwater Horizon clean up operations. Surface and subsurface totals are combined to provide a grand total of dispersant use.

Under the "Current Ops" menu, the daily "Operations and Ongoing Response" reports indicate the amount of dispersants applied by calendar day. Under the "News/Info" menu, the daily "Ongoing Administration-wide Response to the Deepwater BP Oil Spill" reports also provide dispersant information but over a slightly different time period. The "Ongoing Administration-wide Response" reports publish information in the evening for the past 24 hours. Because the report period straddles calendar days, direct comparisons of data with information tabulated on a calendar day format, as is the case with the BP data and the information in the "Operations and Ongoing Response" reports, cannot be made. However, daily computations from the "Operations and Ongoing Response" reports are accomplished by subtracting the cumulative total of one day from the cumulative total from the previous day.

Examining data over the same time period, in this case a calendar day, may eliminate confusion. For example, according to Table 1, BP reported a total of 36,000 gallons of dispersant used on June 13 and the Deepwater Horizon website cited only 13,000 gallons. However, in comparing "Operations and Ongoing Response" calendar day statistics with the BP data, the numbers correlate. The "Operations and Ongoing Response" report indicated that total surface dispersant use for June 13 was 37,000 gallons, comparable to BP's assessment of 36,000 gallons. The following day, June 14, the "Operations and Ongoing Response" stated 12,000 gallons were used which compares to BP's total of 11,000 gallons. Daily computations from the "Operations and Ongoing Response" reports are accomplished by subtracting the cumulative total of one day from the cumulative total from the previous day.

To promote transparency during this historic spill response, the UAC promptly posted dispersant application data for public consumption. One challenge to making data quickly available is the presence of some discrepancies between amounts, which can be reconciled over time. The dispersant application process – from request to approval to deployment – can be spread out over hours or days, complicating efforts to obtain short fused accurate totals without the benefit of a reconciliation process.

Q.9. *On May 30, 2010 BP requested and received retroactive authorization for surface dispersant application that occurred on May 28 without prior USCG approval. On June 6, BP requested and received retroactive authorization for exceeding the maximum daily amount of subsurface dispersant (15,000 gallons) on two separate occasions.*

Q.9.a. *Has the USCG determined why BP failed to obtain advance authorization for the use of dispersant on these occasions?*

A. With regard to the May 30 request, the FOSC retroactively authorized surface application of dispersant at the spill source. BP did not request advance authorization for surface application of dispersant at the spill source because of miscommunication within the response organization following the new Directive which was issued two days earlier. The departure from the limit occurred to lower VOC emissions at the well site. On June 6, the FOSC retroactively authorized subsurface application of dispersant at the spill source following the discovery of a faulty meter used to monitor and report subsurface application. BP set the meter flow rate to coincide with the 15,000 gallons per day dispersant limit, but later learned the actual flow rate was higher than expected thus causing an overage.

Q.9.b. *Why did the USCG decide to make these retroactive authorizations?*

A. On those limited occasions, the FOSC provided authorizations to account for the pace of operations, equipment malfunctioning and the challenges of implementing a new operational policy in the middle of an emergency response.

Q.9.c *What is the point of issuing a Directive requiring advance authorization prior to the use of surface dispersants if the USCG just issues retroactive authorizations in instances in which BP has failed to obtain the requisite advance authorizations?*

A. The FOSC memorialized verbal authorizations to officially record the use of dispersant during the first few days of the order and reaffirm BP's accountability in conforming to the May 26 Directive. The retroactive authorizations occurred because of two exceptional circumstances and were not standard practice.

Q.10. *On June 4, the USCG approved a BP exemption request to apply 23,000 gallons of dispersant subsurface at the site of the well head. This request was made because it was in excess of the May 26th Directive that set the maximum daily limit for subsurface application of dispersants at 15,000 gallons per day. The reason for this exemption approval was noted to be a result of placement of the containment cap, which disrupted dispersant flow. One June 19, another exemption request for subsurface application was submitted; this request was approved without an upper limit for application. BP's rationale for an increase in subsurface application was because of high VOC emissions at the surface.*

Q.10.a. *Why did the USCG approve this June 19th request without an upper limit?*

A. The upper limit on the June 19 authorization was 21,600 gallons (calculated by multiplying 15 gallons per minute by 60 minutes by 24 hours).

Q.10.b. *Why are VOC emissions considered to be an acceptable rationale for approval of both an increase in subsurface and surface use of dispersants?*

A. High levels of VOCs result in hazardous working conditions. Surface and subsurface dispersants are two options for minimizing risks to responders. Each method has trade-offs and operating envelopes.

Q.10.c. *How did the USCG calculate whether the proposed volume increase requested by BP for subsurface application was justified? For example, what flow rate assumptions did BP and the USCG use to determine these volumes and on what basis were those assumptions made?*

A. As part of the Flow Rate Technical Group established by the National Incident Commander, government and independent scientists estimated the most likely flow rate of oil to be between 35,000 and 60,000 barrels per day. Given that the maximum allowable subsurface dispersant application at the spill source was 15,000 gallons a day, the dispersant to oil ratio was in the range of approximately 1:100—below the recommended optimum of 1:20 to 1:50. In the end, it was the constraint in the directive that limited the dispersant-to-oil ratio, rather than the recommended dispersant-to-oil ratio targets. The overall use of dispersants is also influenced by the availability, on a given day of other response mechanisms, such as mechanical recovery or in situ burns.

Q.10.d. *On June 19, the USCG approved a surface exemption request made by BP and a separate request made by Houma Unified Command, totaling 22,400 gallons of surface dispersant. That same day, USCG also approved a subsurface exemption request with no upper limit on volume. Did the USCG take into consideration surface application? If so, please describe the process for such consideration, and if not, why not?*

A. In making a decision to employ dispersants, consideration was given to both surface and subsurface dispersants, their effectiveness, and depends on other factors such as weather conditions, status of resources, and location of dispersible oil. On June 19, pursuant to a request from the Houma Unified Command, the FOSC authorized use of 16,400 gallons of surface dispersant in addition to the 6,000 gallons of surface dispersant authorization at the well site to control VOCs. Of the 22,400 gallons authorized, only about one-third of surface dispersant was deployed. About 17,000 gallons of the 21,600 gallon ceiling of subsurface dispersant was used.

Q.11. *On June 22, 2010, in response to a letter received from the Houma Incident Commander, the USCG wrote to the Regional Team, which is comprised of representatives from sixteen federal departments, requesting that a new Directive on the dispersant approval process be developed to supersede the May 26th Directive. This new Directive was supposed to allow "real-time decisions" to be made regarding the volume of dispersants used and "should in no way condition the use of dispersants on precise data" regarding capability of other mitigating methods. In response to this request the EPA Region 6 proposed a new dispersant deployment procedure which included review and approval by EPA prior to dispersant deployment.*

Q.11.a *Did the USCG request this new Directive because it was concerned that the old Directive to approve changes only in "rare" circumstances was consistently being violated? If not, why was the new Directive requested?*

A. A new Directive was considered after realizing the amount of oil discharged from the well was significantly greater than initially thought. Responders encountered a new reality in a dynamic response requiring frequent dispersant use to mitigate the growing accumulation of oil. The May 26 Directive was predicated on the assumption that the flow of oil into the Gulf of Mexico was about 5,000 barrels per day. However, based on information from the Flow Rate Technical Group, the actual flow of oil was several times larger than first estimated. This significant increase spurred responders to consider reassessing the strategy for the use of dispersants as well as other oil recovery methods.

Q.11.b *On or around June 24, Houma Unified Command evidently requested pre-approval to apply 5,000 gallons of dispersant on the surface per day going forward. A memo from EPA's Samuel Coleman initially concurred with the request, but a second memo subsequently rescinded the concurrence and instead proposed an alternate process which required review and concurrence by EPA. What was the resolution of this matter? Please provide all documents, including phone logs and emails, related to the process by which approvals to use surface dispersants by Houma Unified Command occurred.*

A. On June 25, 2010, the EPA concurred with the FOSC to permit ICP Houma to approve up to 5,000 gallons of aerial dispersant per day provided there was documentation of appropriate targets and that the appropriate monitoring took place. The EPA concurrence with FOSC was in effect as of June 25, and remained in effect until further notice by EPA. For aerial application of volumes over the 5,000 gallon per day limit, the existing concurrence process between FOSC and EPA remained in effect.

Q.11.c. *Was the EPA procedure for dispersant approval proposed in lieu of the USCG proposal adopted? If yes, why wasn't this Addendum made public on the EPA and USCG's website as an Addendum to the May 26th Directive? If not, why not, and was the new Directive suggested by the USCG adopted instead?*

A. The proposed EPA process submitted by Mr. Coleman on June 25, 2010 was not adopted. The documentation shows that by June 25, the EPA concurred with the FOSC to permit Houma to approve up to 5,000 gallons of aerial dispersant per day.

Q.11.d *Did any other Regional Response Team members provide an alternate Addendum proposal? If so, please provide all documentation thereof.*

A. There is no documentation that any other RRT agencies provided an alternative proposal.

Q.11.e. *Please provide all documents, including phone logs and emails, related to the USCG request to develop a new Addendum to address the dispersant approval process.*

A. As previously mentioned, a response of this magnitude generates a tremendous amount of documentation. We will forward any responsive documentation via separate correspondence.

I remain as committed as you to ensuring a safe and effective response to the Deepwater Horizon oil spill with appropriate regard for the health of the environment. The questions raised in your letter have merit, but are challenging to answer in detail during the active portion of a response of this magnitude. I anticipate more information will become available during the deliberative process of compiling the FOSC report, a requirement of the NCP. Yet to be responsive to your important questions, my staff has provided you with the most accurate and current information with the understanding that more information will be available as after-action studies progress.

Sincerely,

T. W. ALLEN
Admiral, U. S. Coast Guard (Ret.)
National Incident Commander