July 10, 2013
Item No. 6
Supporting Document No. 6

June 7, 2013

Mr. David Gibson, E.O.
Regional water Board, San Diego
9174 Sky Park Court, Suite 100
San Diego, CA 92123-4353

RE: Comment s Regarding *Tentative Order No. R9-2013-0093*, ID: 794466

Dear Mr. Gibson and Honorable Board Members:

Attention to *Mr. Eric Becker*

Registered Mail:_____

The proposed Tentative Order should ensure the application of proper technology to reduce cost for shipyards and to protect environment. It also should address onboard treatment of polluted water from dredging. The in-situ water treatment/discharge will reduce "disturbances" of polluted sediments from unnecessary boat traffic; a common problem in bucket dredging operation. The attachment depicts a work strategy to reduce cost while protecting environment.

The Final EIR is deficient for its focus on one technology and can NOT be relied on as guideline for drafting the Tentative Order. Meanwhile, I recommend to a geophysical survey to locate sea floor obstructions (e.g. anchor chains, sunken boats, mooring lines, Navy lost ordinances, etc.) to avoid future expensive downtime and unnecessary risks.

I have solicited several industrialists and companies nationwide to share their expertise in dredging polluted marine sediments. Numerous publications of US Army Corps of Engineers have identified these technologies and its proper applications to remove polluted sediments.

Respectfully yours,

Aladdin M. Masry
Hemet, California

Attachments Marine cementing operation
Controlled Hydro-mechanical dredging

CC: USACE

June 6, 2013

Mr. David Gibson, E. O.
Regional Water Board, San Diego
9174 Sky Park Court, Suite 100
San Diego CA 92123-4353

Marine operations and research experience, Mr. Aladdin Masry

Reference: ID 794466

Dear Mr. Gibson:

Mr. Aladdin Masry has asked me to prepare this letter describing his experience in marine operations and research, as known to me through seven years of professional association from1977 to 1984.

Mr. Masry was first employed by Gulf Research & Development Company (GR&DC) as a junior staff member associated with the R/V *Hollis Hedberg* program. He rose to Chief Scientist in 1978 and was a Marine Operations Supervisor on *Hollis Hedberg* from 1982 until 1984.

As Chief Scientist and then Marine Operations Supervisor Mr. Masry carried out both regional and detailed investigations of areas considered attractive for possible development of natural resources. These investigations mostly were conducted in shallow waters of the continental shelves, scattered across the face of the Earth. New exploration techniques, developed at GR&DC, were tested, evaluated and modified under Mr. Masry's supervision. As Chief Scientist he was able to select from the most advanced exploration technology available from industry as well as GR&DC. This "tool kit" included sea-floor reflectivity, shallow-sediment structure, bottom sampling, and dissolved-hydrocarbon content of the water column, refraction and potential-field measurements. All data were processed and displayed aboard *Hollis Hedberg*, in near-real time, and an interpretative report delivered to the client company when the vessel reached port. Mr. Masry supervised preparation of dozens of such reports and was continually active in suggesting new technologies, as well as new ways of applying the tools already available, to exploration of new areas or for new targets.

I hope the above is satisfactory to you in your consideration of Mr. Masry's qualifications in marine operations and research. Please feel free to call on me at any time if I may answer any questions or provide further information on any point.

I am,

Yours most sincerely,

Robert K. Lattimore
Staff Geophysicist, Chevron Overseas Petroleum, Inc (retired)

Merrimac MA 01860-1642
Tel. 978.384.8243

Robert K. Lattimore
Operations Supervisor

George L. Throop Co.
Specialty Ready Mix
Since 1921

April 10, 2013

ABC Environmental Company
Attn: Aladdin Masry
984 Joseph Dr.
Hemet, CA 92545

Re: San Diego Bay Sediment Pollution Project- Letter of Introduction

Aladdin,

This letter will confirm our interest and qualification to provide an option of a "concrete carpet" to cover some areas in the San Diego Bay over the existing sediment pollution. George Throop Company is a specialty ready mix company founded in 1921. We have self-contained concrete producing equipment that can be placed on a barge and produce fresh concrete all shift long with almost no waste. When working underwater the need to start and stop concrete production is common. Our equipment is well suited for this scope of work. Our machines are calibrated every month by the State of California for Caltrans work.

We are associated with a company that we have done several projects with that would provide and install the fabric forms. They would be anchored to the bottom of the ocean floor as well as around piles and obstacles that need to be encased with concrete. This is done with divers experienced in this type of underwater construction. The fabric formed concrete can be made to end up with whatever thickness of concrete is desired, typically 4"-6" is very common for this type of application.

Durable forms constructed of woven double-layer fabric are filled with pumpable, high-strength, fine aggregate concrete (structural grout), providing an economic and durable solution. The forms are highly effective for marine construction applications protecting against the forces of flowing water, wind waves, vessel-induced waves or propeller wash. Using the proper forms with experienced staff, the installation will provide a highly impermeable concrete carpet over the selected areas to be treated.

Installations are cost-effective because they can be cast in place as easily under water as above, thereby eliminating the need to dewater sites or waterways during installation.

Please call with any needed clarifications after reviewing our letter of introduction.

Regards,

Jeffrey Throop
George L. Throop Co.

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To whom it may concern,

The purpose of this letter is to explain the benefits of Horizontal Hydraulic Dredges for environmental practices. In the United States the vast majority of dredging is directed through the USACE and the EPA. The USACE primary publication in this area is Engineer Manual 1110-2-5025 Dredging and Dredged Material Disposal 1983. The EPA provides the Assessment and Remediation of Contaminated Sediments Guidance Document 1994. These two publications have since been combined by the USACE for publication of the Technical Guidelines for Environmental Dredging of Contaminated Sediments 2008. Because of the length of time since publication these document provide useful information but have not kept up with the advancements in dredging technology. It is recommended that these documents be reviewed prior to making any decisions regarding dredging.

A cursory reading of these publications will show that for situations where particle resuspension is a primary concern there are three dredging methods which are most effective. These methods are, Closed bucket flat clamshell dredging, Plain suction dredging, or shrouded cutterhead dredging. Each of these methods has situations where they are most effective.

Plain suction dredging is most effective at medium depths where the in situ material is loose and can be easily picked up. This method has the possibility of least resuspended solids, However, the lack of a mechanical cutterhead prevents this type of dredge from breaking apart areas where the solids have compacted. This often leads to uneven removal of material or even failure to remove material at all.

Flat Closed Clamshell buckets are most effective for deep depths. This method allows in situ concentrations of solids to be pulled to the surface. The Closed bucket prevents material from spilling out as the bucket is lifted. At short depths this method causes resuspension of solids due to the impact of the bucket against the bed. The work boats and other support vessels required to operate this type of system can also cause significant resuspension of material due to prop wash and wake effects. Spillover from barges is also a major concern with this type of dredging.

Shrouded cutterhead dredges (in our case the horizontal auger dredge) are most effective in shallow depths (less than 30 ft). These dredges use an auger style cutter to resuspend the bed material into a partially enclosed shroud. The material is then sucked from this partially enclosed shroud using the same method as plain suction dredging. Like all hydraulic dredges horizontal auger dredges generally have higher production rates than mechanical dredges. The advantage of horizontal auger dredges over other hydraulic dredges comes in the ability to break apart compacted material while containing the

resuspended particles. The large flat nature of these dredges allows them to create a flat bottom at the desired depth removing all designated material. These dredges also have the capability to pump the material to land based processing to remove contaminants or for transport to disposal sites.

Dredges other than those mentioned above are generally not suitable for most environmental projects because they generate excessive resuspended solids. These dredge include backhoe dredges, standard clamshell dredges, trailing suction dredges, cutter suction dredges and draglines.

In order to maximize the positive benefits of horizontal auger dredges SRS Crisafulli dredges can be equipped with several unique features. Our low turbidity shroud features Venturi suction around the shroud to minimize spillover from the shroud. The articulating shroud allows Crisafulli dredges to ensure that the cutterhead is always directed at the optimum angle for dredging. Our self propulsion system features a variable depth low speed high torque thruster that gives our self propelled dredge maneuverability without resuspending solids in prop wash.

It is impossible to properly describe all the benefits of horizontal dredges in a document of this size. To review the government publications visit the following sites

http://www.epa.gov/greatlakes/arcs/index.html

http://el.erdc.usace.army.mil/elpubs/pdf/trel08-29.pdf

http://140.194.76.129/publications/eng-manuals/EM_1110-2-5025/EM_1110-2-5025.pdf

also visit the DOTS website

http://el.erdc.usace.army.mil/dots/

For more information on SRS Crisafulli Dredges visit
http://www.crisafullipumps.com/
If you have any questions please contact the engineering department at SRS Crisafulli for a full description of how our system can effectively and efficiently dredge contaminated material.

Thank you

SRS Crisafulli inc.
Engineering Department

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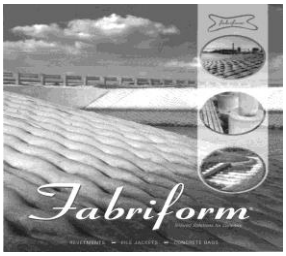
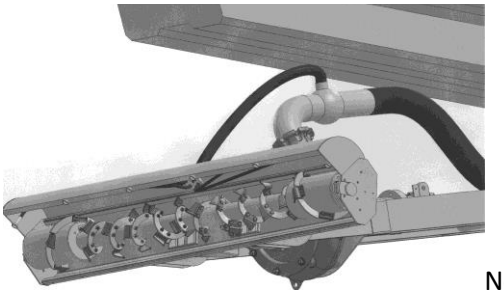
PROPOSED TECHOLOGIES TO DREDGE POLLOUTED SEDIMENTS
FROM SAN DIEGO BAY



Cement veneer proposed to seal shallow polluted sediments and around marine structures.



Notice the six potholes to capture turbidity

Submarine robot proposed to excavate and remove polluted r sediments from 5-25 ft deep. Dredging is done inside a shroud under controlled conditions to prevent suspension of polluted sediments.

Clamshell bucket to dredge deeper sediments over 25 ft. Bucket dredging is the least desirable for its tendencies to suspend polluted sediments and its excavation inefficiencies.

All the proposed technologies are proven effective for decades.