

Port of Bourgas Expansion Project - Ammunition Issues

Problems, Solutions and Achievements

Kentaro Yoshida, yoshidak@pcitokyo.co.jp

Port and Harbor Department, Pacific Consultants International (PCI)

Introduction

The Port of Bourgas is located on the west coast of Black Sea in Bulgaria. The Project is to expand the port with the construction of a new bulk cargo terminal in order to handle the envisaged cargo volume for 2015 equipping it with the necessary cargo handling equipment and constructing a new Breakwater. The construction works will be completed in late summer in 2006.

During the execution of the dredging works we encountered numerous shells dumped into the main access channel after World War 1 and 2. This event had a significant impact for the Project.

This paper presents the background, problems, solutions and achievements of this issue.

Background

After the award of the Contract a magnetic survey and diving inspections were carried out to find the obstacles below the seabed for their removal. The magnetic survey and diving inspections discovered 3 ammunition shells as well as various other metal object requiring removal for dredging works.

The Contractor commenced the dredging works of the access channel by Trailer Suction Hopper Dredger(TSHD) in late September 2001, continued through August 2002, and discovered substantial quantities of ammunition shells during this period and claiming it was unsafe to continue.

The amount of ammunitions discovered by the Contractor numbers approximately 2,000 and the dredging quantity is about 1 million cubic meters.



Discovered Ammunitions

Problems

Basically the Contract did not provide for dredging in the presence of ammunitions.

Prior to reaching this conclusion the Contractor and the Engineer entered into a long discussion concerning whether or not the Contractor arguing that this scope of work was not included in the Contract and the Engineer and the Employer arguing it was in the Contract.

The Engineer concluded the argument in June 2003 by acknowledging that given the extent of ammunitions discovered during dredging then dredging in the presence of ammunitions gave rise to a claim pursuant to the Condition of Contract [Not Foreseeable Physical Obstructions and Adverse Conditions].

Another significant factor was that the Bulgarian Navy did not have a budget to either remove shells in advance of dredging works or to remove shells discovered by the Contractor during dredging operations and the Employer and the Bulgarian Navy failed to reach an agreement in time that would have enable the timely and efficient removal of discovered shells.

The lack of an agreement between the Employer and the Bulgarian Navy meant that initially there were no written procedures upon which the parties could act on in the event of shells being discovered. Although by March 2002 there was an agreed Safety Manual for dealing with such eventualities, but the failure of the Bulgarian Navy to provide a full time presence during the dredging works eventually ended with the Contractor suspending the access channel dredging works on the ground of safety.

Solutions

Given the potential danger of injury to persons and property in dealing with ammunitions it would not be possible to deal with this matter under the term of the Contract. The only viable solution was to reach a mutual and voluntary agreement with the Contractor to complete the reduced scope of dredging works. Such an agreement was termed a Supplemental Agreement.

The only alternative to a Supplemental Agreement was for the Employer to disputes with the Contractor at Arbitration or Termination.

The alternative to settle the matter at Arbitration was not recommended on the basis the Employer's defense was weak, the expense would be high, and the time taken would be long.

The Employer accepted in principle to reach an agreement with the Contractor to resume partial dredging and protracted period from August 2002 to March 2004 Supplemental Agreement No.1 was signed in the additional sum of US\$11 million.

During the discussions, it had decided to reduce the scope of the dredging works with the deletion of most of the remaining access channel dredging works on the grounds that there would be no budget available to complete these works for sometime. The reduced scope of dredging was the minimal amount of dredging that would permit the completion and operation of New Terminal 2A within the original schedule.

Supplemental Agreement No.1 makes provision for a change in method of dredging works from TSHD to heavy-duty grab dredger mounted on a barge. This is considered by all parties as the safest means of dredging.



Musashi Grab Dredger, 15m³

It was recognized by all parties that a key element to the success of Supplemental Agreement was for the Employer to enter into an agreement with the Bulgarian Navy to provide full time personnel to the Project to deal with the timely and efficient removal of shells as and when they were discovered.

The Employer and Bulgarian Navy duly entered into such an agreement and produced a revised Safety Manual, which clearly set out the procedures and responsibilities of all parties if shells were discovered.

However in order to complete the East Breakwater it was necessary to make a detour to the existing access channel to provide safe working spaces for the East Breakwater construction activities. The heavy-duty grab dredger provided for in Supplemental Agreement No.1 was not suitable to dredge the detour channel. Hence it became necessary to enter into another Supplemental Agreement No.2.

The original scope for the Project provided for increasing the depth of the existing access channel from 11.5m to 15.8m however in order to save money the intention was to delete this scope and add a detour channel. The intention of Supplemental Agreement No.2 was to delete the access channel dredging and add a detour channel at an estimated overall saving in cost of US\$13million.

The Supplemental Agreement No.2 was signed on September 2004 and dredging works was carried out by TSHD(HAM310, 12,000m³).



TSHD, HAM310, 12,000m³

Achievements

The Supplemental Agreements enabled substantial completion of the main civil and building works for Terminal 2A within the original schedule and enabled the port operation more or less on time.



First Ship to Terminal 2A, Nov. 2005

End