A monthly newsletter of the Energy Facility Contractors Group's Project Delivery Working Group

Issue 20

March 2021

Spring Has Sprung!

Greetings, PDWG Team Members. Spring is upon us and winter is fading away with each day. Not that anybody is counting, but we have now gone a full year in "pandemic" mode. With all things considered, many would agree that it has and continues to be a very busy and productive time.

This month's edition of the *Practitioner* takes a re-look at Integrated Baseline Reviews (IBRs) and the drivers behind them. With new contracts having been awarded, and others to follow, refreshing our familiarity with the requirements and drivers will prove helpful.

We also take a look at the United States Department of Labor Occupational Safety and Health Administration webpage, whose stated goal "...is to help employers, workers, construction engineers, project managers, and regulatory bodies identify problems in construction design, project management, and management of field engineering changes. Hopefully, this information will help reduce future incidents, fatalities, and serious injuries."

Integrated Baseline Reviews

An Integrated Baseline Review (IBR) is a formal review led by the Government Program Manager and Technical Support Staff. An IBR is conducted jointly with the Government and their Contractor counterparts.

Because the IBR uses the technical content of the Performance Measurement Baseline (PMB), it's important that you have a solid understanding of the PMB.

The initial IBR is typically conducted within six months after contract award. Integrated Baseline Reviews will also be performed when work on a production option of a development contract begins or, at the discretion of the program manager, when a major modification to an existing contract significantly changes the existing PMB.

When a major event occurs within the life of a program such as a Critical Design Review (CDR), and a significant shift in the content and/or timephasing of the PMB occurs, the Program Manager may conduct a review of the associated resources and schedules affected by the changes.

The IBR is intended to be a continuous part of the Program Management Process by both the Government and the Contractor.

Integrated Baseline Reviews

Continued from previous page

The Objectives of the IBR are to:

- Ensure that the technical content of Control Account, Work Packages, and Planning Packages
 is consistent with the Contract Work Breakdown Structure and the Contract Statement of Work
- Ensure that a logical sequence of effort planned is consistent with the contract schedule
- Assess the validity of allocated budgets in terms of work content, resources, and time-phasing
- Understand the earned value methods for measuring accomplishment and to verify that objective and meaningful performance data is provided in terms of technical accomplishment
 Primary drivers behind IBRs can be found in FAR 34.202 Integrated Baseline Reviews, below:

FAR 34.202 Integrated Baseline Reviews.

- (a) When an EVMS is required, the Government will conduct an Integrated Baseline Review (IBR).
- (b) The purpose of the IBR is to verify the technical content and the realism of the related performance budgets, resources, and schedules. It should provide a mutual understanding of the inherent risks in offerors'/contractors' performance plans and the underlying management control systems, and it should formulate a plan to handle these risks.

76e PRACTITIONER

Published monthly for the EFCOG's Project Delivery Working Group by:

Craig Hewitt

(writer/editor) (509) 308-2277

Craig T Hewitt@rl.gov

Adam Russell

(writer/publisher) (509) 376-5742 Adam_Russell@rl.gov

Tony Spillman

(managing editor) (509) 372-9986

Anthony W Spillman@rl.gov

For questions, comments, story ideas or other correspondence, call or email Craig Hewitt at the contact information above

- (c) The IBR is a joint assessment by the offeror or contractor, and the Government, of the-
- (1) Ability of the project's technical plan to achieve the objectives of the scope of work;
- (2) Adequacy of the time allocated for performing the defined tasks to successfully achieve the project schedule objectives;
- (3) Ability of the Performance Measurement Baseline (PMB) to successfully execute the project and attain cost objectives, recognizing the relationship between budget resources, funding, schedule, and scope of work;
- (4) Availability of personnel, facilities, and equipment when required, to perform the defined tasks needed to execute the program successfully; and
- (5) The degree to which the management process provides effective and integrated technical/schedule/cost planning and baseline control.
- (d) The timing and conduct of the IBR shall be in accordance with agency procedures. If a pre-award IBR will be conducted, the solicitation must include the procedures for conducting the IBR and address whether offerors will be reimbursed for the associated costs. If permitted, reimbursement of offerors' pre-award IBR costs is governed by the provisions of <u>FAR part 31</u>.

Parent topic: Subpart 34.2 - Earned Value Management System

For more information, visit https://www.acquisition.gov/

It is Not One World — What We Do and How We Do it Matters!

This month's issue finds us much closer to home looking in our own backyard. Researching for this month's edition led to discovering the United States Department of Labor Occupational Safety and Health Administration webpage.

This webpage provides original investigations of collapses and other incidents conducted by the Directorate of Construction, OSHA. Many of these incidents resulted in one or more worker fatalities, and most of them resulted in multi-million dollar property loss, lawsuits, or settlements. Each investigation was performed at the request of an OSHA field office or State Plan OSHA as part of an enforcement inspection. Due to the nature of investigations of construction collapses and other incidents, these reports may contain professional opinions of the investigating engineer, opinions of incident root cause, and factual data and findings.

The stated goal "...is to help employers, workers, construction engineers, project managers, and regulatory bodies identify problems in construction design, project management, and management of field engineering changes. Hopefully, this information will help reduce future incidents, fatalities, and serious injuries."

Some of the photographs, schematics, computations, tables, figures and other non-text items have been removed from the posted versions and are not displayed. The text of each report is otherwise identical with the original document. The original document is a part of the OSHA case file and is maintained in the appropriate Area Office or State Plan.

"Construction Incidents Investigation Engineering Reports"

July 2019: Investigation of March 15, 2018 Pedestrian Bridge Collapse at Florida International University, Miami, Fla.

A pedestrian bridge under construction collapsed and fell over the SW 8th Street near SW 109th Avenue in Miami, Florida. The bridge was being constructed to connect the FIU campus with the City of Sweetwater. The bridge, at this stage of construction, consisted of a single concrete truss spanning approximately 174 feet and weighed approximately 930 tons. The concrete bridge was cast at a nearby off-site

930 tons. The concrete bridge was cast at a nearby off-site location and then transported to its final location. At the time of the collapse, motorists were waiting underneath the bridge for the traffic light. One employee and five motorists were fatally injured, and another employee permanently disabled.

October 2018: Investigation of the April 19, 2018, Communication Tower Collapse in Fordland, Mo.

The project involved the reinforcement of the KOZK 1,891-foot-tall guyed communication tower just north of Fordland, Missouri. The tower required structural modifications to support the transmission line replacement. However, the suggested diagonal replacement procedure was flawed in that it compromised the effectiveness of the integrated surrounding braces and the load bearing capacity of the tower legs. At the time of the collapse, contractor was performing structural modifications to the tower.

Construction Incidents Investigation Engineering Reports

September 2018: Investigation of the Failures of Three Hammerhead Cranes on September 10, 2017, in Miami and Fort Lauderdale, Fla., in the Wake of Hurricane Irma.

Three hammerhead tower cranes collapsed within hours of each other; two in Miami and one in Ft. Lauderdale, Fla., during heavy winds in the wake of Hurricane Irma. The three cranes were the same model SK-315. There was another SK 315 model crane that did not collapse which was at a much lower height and was shielded by tall structures. There were Terex manufactured cranes other than SK 315 in the area which did not fail. The crane jibs detached from their turntables due to turbulent wind and the cranes failed.



June 2018: Investigation of the Trench Collapse at I-95 on February 4, 2018, in Miami, Fla.

To repair a damaged or misaligned buried drainage pipe, the employees were hand-digging a trench besides a newly installed concrete barrier, more than 130 feet long. The concrete barrier collapsed into the trench while the employees were digging the trench. Two employees in the trench were killed.

To access additional information visit the website here: https://www.osha.gov/construction/engineering





Is your data and info Current, Accurate, Complete, Repeatable, Auditable and Compliant®?

©2019, CT Hewitt Consultants

Just for Fun: March's Notable Events and Famous Birthdays

- 1 The Salem witch hunt began (1692), the Articles of Confederation were ratified (1781), Yellowstone Park was established (1872), actor/director Ron Howard was born (1954), and the Peace Corps was established (1961)
- 2 Congress abolished the African slave trade (1807), Texas declared its independence from Mexico (1836), author Dr. Seuss was born (1904), and Wilt Chamberlain scored an NBA-record 100 points in a game and rocker Jon Bon Jovi was born (1962)
- 3 Congress passed the Missouri Compromise (1820), inventor Alexander Graham Bell was born (1847), the first U.S. wartime draft was approved (1863), the first indoor hockey game was played (1875), Rutherford B. Hayes became president (1877), and "The Star-Spangled Banner" officially became America's national anthem (1931)
- 4 The first session of the U.S. Congress was held (1789), Abraham Lincoln became president (1861), football pioneer Knute Rockne was born (1888), Woodrow Wilson became president (1913), FDR became president (1933), and comedian John Candy died (1994)
- 5 The Boston Massacre took place (1770), Soviet leader Joseph Stalin died (1953), and the Hula-Hoop was patented (1963)
- 6 Painter Michelangelo was born (1475), the Battle of the Alamo ended (1836), the Dred Scott case was decided (1857), aspirin was patented (1899), and basketball **star Shaquille O'Neal was born** (1972)



- 7 Alexander Graham Bell patented the telephone (1876), and Hitler sent troops to the Rhineland in violation of the Treaty of Versailles (1936)
- 8 The first U.S. Marines arrived in Vietnam (1965), Joe Frazier beat Muhammad Ali in the "Fight of the Century" (1971), "Beavis and Butthead" premiered on MTV (1993), and a Malaysia Airlines jet vanished with more than 200 people aboard (2014)
- 9 Cosmonaut Yuri Gagarin (1934) and chess wizard Bobby Fischer (1943) were born, the Barbie doll debuted (1959), the first Adopt-a-Highway sign appeared (1985), comedian George Burns died (1996), and rapper The Notorious B.I.G. was killed (1997)
- 10 The telephone first transmitted speech (1876), tough guy Chuck Norris (1940), actress Sharon Stone (1958) and singer Carrie Underwood (1983) were born, disco singer Andy Gibb died (1988), and "Buffy the Vampire Slayer" debuted (1997)
- 11 The Army Corps of Engineers was established (1779), the Confederate constitution was adopted (1861), the first cases of the flu pandemic were reported (1918), Paul McCartney was knighted (1997), **the Fukushima nuclear disaster in Japan occurred** (2011), and the World



Health Organization officially declared the COVID-19 outbreak as a pandemic (2020)

- 12 FDR's first "fireside chat" was broadcast (1933), Germany annexed Austria (1938), singer James Taylor was born (1948), and Janet Reno became the first female attorney general (1993)
- 13 The planet Uranus was discovered (1781), President Andrew Johnson's impeachment trial began (1868), and the Army established its K-9 Corps (1942)
- 14 Albert Einstein (1879) and actor/comedian Billy Crystal (1948) were born, and 22 members of the U.S. boxing team were killed in a plane crash (1980)
- 15 Roman emperor Julius Caesar was murdered (44 BC), President Andrew Jackson was born (1767), Maine became a state (1820), Bobby Orr became the first NHL defenseman to score 100 points in a season (1970), "The Godfather" opened in theaters (1972), and actress Eva Longoria was born (1975)
- 16 President James Madison was born (1751), the U.S. Military Academy was established (1802), the first liquid-fueled rocket was successfully launched and actor/comedian Jerry Lewis was born (1926), and actor Erik Estrada was born (1949)
- 17— St. Patrick died (461), the British evacuated Boston (1776), and automotive pioneer Gottlieb Daimler (1834), golfer Bobby Jones (1902), and actors Kurt Russell (1951) and Rob Lowe (1964) were born

- 18 President Grover Cleveland was born (1837), Wells Fargo was established (1852), a natural gas explosion at a Texas school killed nearly 300 students (1937), and the War Relocation Authority was established (1942)
- 19 Western artist Charles Russell was born (1864), the **first U.S. air combat mission was flown in World War I** (1916), Nevada legalized gambling (1931), actress Glenn Close



was born (1947), the Academy Awards were first shown on TV (1953), actor Bruce Willis was born (1955), and Operation Iraqi Freedom began (2003)

- 20 The Black Death plague broke out in Europe (1345), the Republican Party was formed (1854), TV's Mr. (Fred) Rogers was born (1928), and terrorists attacked a Tokyo subway with nerve gas (1995)
- 21 Composer J.S. Bach was born (1685), the first rock concert was held (1952), Alcatraz Prison closed (1963), the Alabama Freedom March began (1965), and the U.S. announced its boycott of the Summer Olympics and soccer star Ronaldinho was born (1980)
- 22 The Stamp Act was imposed on the American colonies (1765), the first Stanley Cup championship was played (1894), Western novelist Louis L'Amour was born (1908), actor William Shatner was born (1931), the Arab League was formed (1945), sportscaster Bob Costas was born (1952), the Equal Rights Amendment was passed by the Senate (1972), and a mudslide at Oso, Washington, killed 43 people (2014)
- 23 Lewis & Clark began their journey back to the Midwest from the Pacific Coast (1806), actress Joan Crawford was born (1904), the Fascist party was founded (1919), and actress Elizabeth Taylor died (2011)
- 24 Magician Harry Houdini (1874) and actor Steve McQueen (1930) were born, **Elvis Presley was inducted into the Army** (1958), football star Payton Manning was born (1976), the *Exxon Valdez* ran aground in Alaska and spilled 11 million gallons of oil (1989), astronaut Shannon Lucid became the first woman to live in a space station (1996), and a school shooting in Jonesboro, Arkansas, killed five people (1998)



- 25 A fire in the Triangle Shirtwaist factory killed 146 workers (1911), singers Aretha Franklin (1942) and Elton John (1947) were born, the European Economic Community was founded (1957), race car driver Danica Patrick was born (1982), the last U.S. troops departed Somalia (1994)
- 26 Poet Robert Frost (1874) and actor Leonard Nimoy (1931) were born, the polio vaccine was announced (1953), star athletes Marcus Allen (1960) and John Stockton (1962) were born, and a peace agreement between Israel and Egypt was signed (1979)
- 27 Oregon beat Ohio State to win the first ever NCAA men's basketball tournament (1939), Nikita Khrushchev became premier of the Soviet Union (1958), director Quentin Tarantino (1963) and singer Mariah Carey (1970) were born, and the FDA approved Viagra (1998)
- 28 San Francisco was founded (1776), singer Reba McEntire was born (1955), General/President Dwight D. Eisenhower died (1969), the Three Mile Island nuclear disaster occurred (1979), and **the Baltimore Colts moved to Indianapolis** (1984)
- 29 President John Tyler (1790), baseball star Cy Young (1867), basketball star Walt Frazier (1945) and football star Earl Campbell (1955) were born, the last U.S. combat troops departed from Vietnam (1973), and Mariner 10 became the first space probe to land on Mars (1974)
- 30 Artist Vincent Van Gogh was born (1853), the U.S. bought Alaska from Russia (1867), the 15th Amendment granting African-American men the right to vote was adopted (1870), guitarist Eric Clapton (1945), rapper M.C. Hammer (1962) and singer Celine Dion (1968) were born, and President Ronald Reagan was shot (1981)
- 31 The Eiffel Tower opened (1889), hockey legend Gordie Howe (1928), actor Christopher Walken (1943) and former vice-president Al Gore (1948) were born, the longest major league baseball strike ended (1995), and The Matrix opened in theaters (1999)