

THE PRACTITIONER



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Greetings Practitioners! It has already been a busy spring as we roll on towards summer. Most would agree we are experiencing interesting times, globally, nationally, within our government agency and certainly our industry. The constant appears to be change. Speaking of change, this month's Practitioner looks at the current Department of Energy Office of Project Management Project Controls and Policy Division (PM-30) Earned Value Management System Certification process/approach.

Less is More

The EVMS Compliance Review Standard Operating Procedure (ECRSOP) provides detailed guidance for DOE PM staff and contractors performing Earned Value Management System (EVMS) compliance reviews. DOE Order (O) 413.3B, Program and Project Management for the Acquisition of Capital Assets, requires that PM establish, maintain and execute a documented EVMS compliance assessment process in accordance with established dollar threshold levels to ensure full compliance with applicable Federal Acquisition Regulations (FAR) and Office of Management and Budget (OMB) EVMS compliance requirements. The ECRSOP applies only to PM personnel and PM-led or initiated review teams responsible to determine EVMS compliance. It provides specific guidance for the consistent assessment of compliance and evaluation of the efficient implementation of a contractor's EVMS as part of PM-led reviews. An updated list of supporting documents is maintained [here](#).

At the link above you will find "Appendix A," the Compliance Assessment Governance (CAG), which describes the PM-30 approach to "... implementation of FAR Subpart 34.2 and the EIA-748 EVMS Standard." through the Integrated Program Project Management (IP2M) Maturity and Environment Total Risk Rating (METRR), "...a novel method for assessing a spectrum of EVMS environment and implementation maturity factors."

More About IP2M METRR

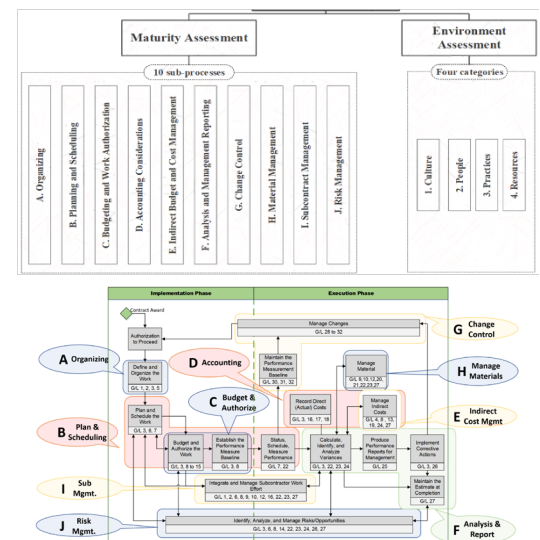
IP2M METRR consists of:

Four environmental categories: Culture, People, Practice, and Resource, divided into a total of 27 factors,

and

10 subprocesses necessary for an EVMS: (A) organizing, (B) planning and scheduling, (C) budgeting and work authorization, (D) accounting considerations, (E) indirect cost management, (F) analysis and managerial reporting, (G) change control, (H) material management, (I) subcontract management, and (J) risk management...divided into a total of 56 attributes.

The 10 subprocesses all map to the EIA-748 EVMS Guidelines.



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Less is More

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Innovation and Optimization

Recent PM-30 Review Process efficiencies:

- Four environmental categories: Culture, People, Practice, and Resource...reduced from 27 to 16 factors, and may be further reduced
- 10 subprocesses necessary for an EVMS: (A) organizing, (B) planning and scheduling, (C) budgeting and work authorization, (D) accounting considerations, (E) indirect cost management, (F) analysis and managerial reporting, (G) change control, (H) material management, (I) subcontract management, and (J) risk management...divided into a total of 56 attributes – Note: a subset of the 10 subprocesses may be selected (based on the "Environment" assessment and contract profile) to gain additional efficiencies
 - Example: Review Team could down-select Subprocesses (A) organizing, (B) planning and scheduling, (C) budgeting and work authorization, (G) change control, (I) subcontract management, and (J) risk management

Again, the 10 subprocesses all map to the EIA-748 EVMS Guidelines.

Facilitated Workshops

- Environment and Maturity Assessments are performed through certified facilitators
- Facilitators are independent of the review team
- Workshops are performed individually for each entity: DOE Program Office, DOE Review Team, Contractor Leadership, Contractor Practitioners
- Each entities score and comments are collected, analyzed using Artificial Intelligence (AI), then compared to identify differing views
- All entities are brought together in a "Reconciliation" workshop to collaboratively discuss the differing views and perspectives...entities are welcome to adjust their scores based on the discussion, but are not required to make an adjustment

Facilitated Workshop Benefits

- Ironically, the differing views that are the focus of the collaborative "Reconciliation" workshops are often a reflection of the lack of collaboration of the various entities (DOE Program Office, DOE Review Team, Contractor Leadership, Contractor Practitioners)
- With a facilitated discussion, using the comments provided by each group, consensus based on the facts, may compel one of more entities to adjust the scoring
- It appears to be as simple as having a fact based, professional and congenial conversation

Facilitated Corrective Action Management Collaborative Workshop

- Corrective Action (CA) must start with a Consensus Problem Statement (CPS)
- A CPS is to CA what a Work Breakdown Structure (WBS) Dictionary is to scope definition...defining what "complete" looks like
- Once the CPS is finalized the Corrective Action Management Plan (CAMP) can be drafted, reviewed, and if appropriate, approved by PM-30 for execution / implementation

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**THE
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Less is More

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- Once implemented, corrective action effectiveness can be demonstrated by the contractor and validated by PM-30

The recurring theme throughout the approach is facilitation and collaboration. This is a significant and beneficial change from the past process, producing favorable comments from all involved. Some have commented on the "fairness" of the process, the "independence" of the facilitation, and the "open and frank" discussions that have led to a better understanding of each entity's viewpoint.

A robust, disciplined self-governance program or project using an optimized IP2M METRR EVMS process would both compliment the current PM-30 certification process and exponentially increase successful project completion, on-time and budget.

That's all for this month but I leave you with two salient quotes:

"Self-government won't work without self-discipline." — Paul Harvey

"The only place success comes before work is in the dictionary." — Vince Lombardi

It Is Not One World

In our world, getting it right matters. Getting it wrong can be dangerous and catastrophic to all involved. In this issue of *The Practitioner*, we begin an ongoing series of catastrophic construction failures to raise awareness of the relationship between critical thinking and identification of potential technical, policy, procedural, process, and execution weaknesses that if recognized early, could avert disaster. One other key area to watch for is maintenance, or the lack thereof. Delaying needed maintenance can also produce disastrous results. Let's dive in!

Throughout history, engineering and construction have shaped the landscapes we live in, creating marvels of innovation and design. Yet, alongside these triumphs, there have been catastrophic failures—cases where poor planning, structural weaknesses, or unforeseen circumstances led to disaster. In this ongoing series, we will explore some of the most infamous construction failures. From crumbling bridges to collapsing towers, these failures serve as stark reminders of the importance of precision, oversight, and accountability in the built environment.

Each article in this series will look at different construction disaster. Some failures stemmed from ambitious projects that pushed boundaries too far, while others were the result of negligence or oversight. Through these tragedies, we aim to shed light on the complexities of modern construction and the risks that come with large-scale engineering projects.

While these stories can be grim, they also serve as thought provoking critical thinking and learning experiences that drive advancements in construction and engineering. Understanding past mistakes is key to preventing future ones, and by exploring these failures, we gain insight into what it takes to build safe, resilient structures. Join us as we uncover the stories behind construction's greatest missteps and what they teach us about the future of building.

I-35 Mississippi River Bridge Collapse

Note: For in-article links and footnote references. see the link at the end of this article.

The I-35W Mississippi River bridge (officially known as Bridge 9340) was an eight-lane, steel truss arch bridge that carried Interstate 35W across the Mississippi River one-half mile (875 m) downstream from the Saint Anthony Falls in Minneapolis, Minnesota, United States. The bridge opened in 1967, and was Minnesota's third busiest, carrying 140,000 vehicles daily. After only 39 years in service, it experienced a catastrophic failure during the evening rush hour on August 1, 2007, killing 13 people and injuring 145. The National Transportation Safety Board (NTSB) cited a design flaw as the likely cause of the collapse, noting that an excessively thin gusset plate ripped along a line of rivets. Additional weight on the bridge at the time of failure was also cited by the NTSB as a contributing factor.

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Bridge Collapse

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Help came immediately from mutual aid in the seven-county Minneapolis–Saint Paul metropolitan area and emergency response personnel, charities, and volunteers. Within a few days of the collapse, the Minnesota Department of Transportation (MnDOT) planned its replacement with the I-35W Saint Anthony Falls Bridge. The construction of the replacement bridge was completed quickly, and the new bridge officially opened on September 18, 2008.

The bridge was located in Minneapolis, Minnesota's largest city, and connected the neighborhoods of Downtown East and Marcy-Holmes. The south abutment was northeast of the Hubert H. Humphrey Metrodome, and the north abutment was northwest of the University of Minnesota East Bank campus. The bridge was the southeastern boundary of the "Mississippi Mile" downtown riverfront parkland. Downstream is the 10th Avenue Bridge, once known as the Cedar Avenue Bridge. Immediately upstream is the Saint Anthony Falls lower lock and dam. The first bridge upstream is the historic Stone Arch Bridge, built for the Great Northern Railway and now used for bicycle and pedestrian traffic.

The north foundation pier of the bridge was near a hydroelectric plant that was razed in 1988. The south abutment was in an area polluted by a coal gas processing plant and a facility for storing and processing petroleum products. These uses effectively created a toxic waste site under the bridge, leading to a lawsuit and the removal of the contaminated soil. No relationship has been claimed between these previous uses and the bridge failure.

Links:

Article: [I-35W Mississippi River bridge - Wikipedia](#)

Photos: [I35 Bridge Collapse 4crop - I-35W Mississippi River bridge - Wikipedia](#)

Video: [i-35w mississippi river bridge collapse video - Google Search](#)

NTSB Report: <https://www.dot.state.mn.us/i35wbridge/pdf/ntsb-report.pdf>

**Is your data
and info
Current,
Accurate,
Complete,
Repeatable,
Auditable and
Compliant[©]?**

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Operations keeps the lights on, strategy provides a light at the end of the tunnel, but project management is the train engine that moves the organization forward.

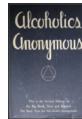
– Joy Gumz

PM ProjectManager

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

Notable Events

- 1 — The Superman comic was first published (1938), the Beatles released *Sgt. Pepper's Lonely Hearts Club Band* (1967), the Heimlich Maneuver was invented (1974), CNN made its debut (1980), an agreement between the U.S. and U.S.S.R. to destroy chemical weapons was signed (1990), and a fire at Universal Studios destroyed irreplaceable recordings and videos and a King Kong attraction (2008)
- 2 — The Civil War officially ended (1865), PT Barnum's circus made its debut (1871), Grover Cleveland became the first U.S. president to marry while in office (1886), the Indian Citizenship Act was passed (1924), and baseball legend Babe Ruth retired (1935)
- 3 — The first electric power lines in the U.S. went into service (1889), the National Defense Act, which expanded the National Guard, was signed (1916), the Zoot Suit Riots in Los Angeles began (1943), Ed White became the first American to walk in space (1965), and eight people were killed in a terrorist attack on the London Bridge (2017)
- 4 — The first recorded solar eclipse occurred (780 BC), the first hot air balloon was launched in France (1783), the first transcontinental Express Train arrived in San Francisco from New York (1876), World War II's Battle of Midway began (1942), and the Tiananmen Square Massacre took place in China (1989)
- 5 — The Six Day War between Israel and an Arab coalition began (1967), **Sen. Robert F. Kennedy was assassinated** (1968), and President Ronald Reagan died (2004)
- 6 — President Andrew Jackson became the first president to ride a train (1833), the first drive-in theater opened in New Jersey (1933), and World War II's D-Day began as the Allies invaded the north coast of France (1944)
- 7 — Motown (known as Tamla Records) was launched (1958), and Texas became the first state to make Juneteenth an official holiday (1979)
- 8 — The first Porsche was completed (1948), George Orwell's *1984* was published (1949), and the NFL and AFL announced their merger (1966)
- 9 — Donald Duck debuted (1934), and Secretariat won horse racing's Triple Crown (1973)
- 10 — Benjamin Franklin discovered electricity (1752), **Alcoholics Anonymous was founded** (1935), the ballpoint pen was patented (1943)
- 11 — Actor John Wayne died (1979), and the movie *E.T. The Extra-Terrestrial* was released (1982)
- 12 — The first perfect game in baseball was pitched (1880), and the Philippines declared its independence from Spain (1898)
- 13 — The Miranda rights were established (1966), and Thurgood Marshall was appointed to the Supreme Court (1967)
- 14 — The U.S. Army was organized (1775), Congress adopted the Stars and Stripes as America's flag (1777), sandpaper was patented (1834), and Walt Disney's *Bambi* was released (1942)
- 15 — The first blood transfusion was performed (1667), the state of Delaware was formed (1776), and the border between the U.S. and Canada was established (1846)
- 16 — The first roller coaster in America opened (1884), the Ford Motor Company was incorporated (1903), and cosmonaut Valentina Tereshkova became the first woman in space (1963)
- 17 — The Battle of Bunker Hill during the American Revolution began (1775), Statue of Liberty arrived in New York City from France (1885), and the NBA and ABA announced their merger (1976)
- 18 — The War of 1812 began (1812), Napoleon was defeated at Waterloo (1815), and Sally Ride became the first American woman in space (1983)
- 19 — The first Juneteenth celebration was observed in Texas (1866)
- 20 — West Virginia became a state (1863), the first jet plane was tested (1939), and **the movie *Jaws* premiered** (1975)
- 21 — The U.S. Constitution was ratified (1788), and an earthquake in Iran killed 50,000 people (1990)
- 22 — Donuts were invented (1847), Germany invaded the Soviet Union during World War II (1941), the G.I. Bill was signed (1944), and the first *The Fast and the Furious* movie was released (2001)
- 23 — The Secret Service was created (1860), and the anti-discrimination Title IX education act went into effect (1972)
- 24 — The Soviet Union began a blockade of West Berlin, Germany (1948)
- 25 — Gen. George Custer and the 7th U.S. Cavalry were wiped out in the Battle of Little Big Horn (1876), the Korean War began (1950), and pop star Michael Jackson died (2009)
- 26 — The first U.S. troops arrived in France in World War I (1917), the United Nations was chartered (1945), and the Berlin Airlift began (1948)
- 27 — The Smithsonian Institution was established (1829), Mormon church founder Joseph Smith was killed (1844), the "Happy Birthday" song was first sung (1859), and President Truman ordered U.S. troops to Korea (1950)
- 28 — The Treaty of Versailles was signed, officially ending World War I (1919), and the first U.S. offensive of the Vietnam War began (1965)
- 29 — The Supreme Court ruled the death penalty as unconstitutional (1972)
- 30 — Daredevil Charles Blondin became the first person to cross Niagra Falls on a tightrope (1859), the novel *Gone With the Wind* was published (1936)



Birthdays

- 1 — Mormon leader Brigham Young (1801), actors Andy Griffith and Marilyn Monroe (1926), and Morgan Freeman (1937), model Heidi Klum (1973), singer Alanis Morissette (1974), and comedian/actress Amy Schumer (1981)
- 2 — First Lady Martha Washington (1731), actor/comedian Dana Carvey (1955), entertainers Wayne Brady (1972) and Awkwafina (1988)
- 3 — Confederate President Jefferson Davis (1808), poet Alan Ginsberg (1926), TV personality Anderson Cooper (1967), and tennis star Rafael Nadal (1986)
- 4 — Sex therapist Dr. Ruth Westheimer (1928), singer Michelle Phillips (1944), and **actress Angelina Jolie** (1975)
- 5 — Sax player Kenny G (1956)
- 6 — Spiritual leader The Dalai Lama (1935) and tennis champ Bjorn Borg (1956)
- 7 — Entertainer Dean Martin (1917), boxing champ Rocky Graziano (1922), actor Liam Neeson (1952), and musician Prince (1958)
- 8 — Architect Frank Lloyd Wright (1867), football star and Supreme Court justice Byron White (1917), First Lady Barbara Bush (1925), actor Jerry Stiller (1929), comedian Joan Rivers (1937), singer Nancy Sinatra (1940), musician Boz Scaggs (1944), and hip-hop artist Kanye West (1977)
- 9 — Steam locomotive inventor George Stephenson (1781), composer Cole Porter (1891), sportscaster Dick Vitale (1940), and actors Michael J. Fox (1961), Johnny Depp (1963) and Natalie Portman (1981)
- 10 — Singer/actress Judy Garland (1922) and Olympic figure skating champ Tara Lipinski (1982)
- 11 — Composer Richard Strauss (1864), undersea explorer Jacques Cousteau (1910), **Hall of Fame football coach Vince Lombardi** (1943), actor Gene Wilder (1935) and Hall of Fame quarterback Joe Montana (1956)
- 12 — 41st U.S. President George H. W. Bush (1924), Holocaust survivor and author Anne Frank (1929), actor/singer Jim Nabors (1933), and sportscaster Marv Albert (1943)
- 13 — Actors Malcolm McDowell (1943) and Richard Thomas (1951), comedian/actor Tim Allen (1953), and twin actresses Mary-Kate and Ashley Olsen (1986)
- 14 — Author Harriet Beecher Stowe (1811), singer/actor Burl Ives (1909), President Donald Trump (1946), singer Boy George (1961), and tennis champ Steffi Graf (1969)
- 15 — Country singer Waylon Jennings (1937), actor Jim Belushi (1954), baseball Hall of Famer Wade Boggs (1958), actresses Helen Hunt (1963) and Courtney Cox (1964), rapper Ice Cube (1969), and actor Neil Patrick Harris (1973)
- 16 — Apache leader Geronimo (1829), actress Joan Van Ark (1943), boxing great Roberto "No mas" Duran (1951), and rapper Tupac Shakur (1971)
- 17 — Composer Igor Stravinsky (1882), singer Barry Manilow (1946), actress Phylicia Rashad (1948), **Olympic speed skating champ Dan Jansen** (1965), tennis star Venus Williams (1980), and rapper Kendrick Lamar (1987)
- 18 — Rock star Paul McCartney and film critic Roger Ebert (1942), actress Carol Kane (1952), and country singer Blake Shelton (1976)
- 19 — Baseball Hall of Famer Lou Gehrig (1903), actress Kathleen Turner (1954) and dancer/singer Paula Abdul (1963)
- 20 — Actor Errol Flynn (1909), singers Brian Wilson (1942) and Anne Murray (1945), TV handyman Bob Vila (1946), singer Lionel Richie (1950), actor John Goodman (1952), singer Cyndi Lauper (1953), and actress Nicole Kidman (1967)
- 21 — Actresses Jane Russell (1921), Maureen Stapleton (1925) and Meredith Baxter (1947), actor Michael Gross (1947), and **singer Lana Del Rey** (1985)
- 22 — Singer/actor Kris Kristofferson (1936), and actresses Meryl Streep (1949) and Lindsay Wagner (1949), and author Dan Brown (1964)
- 23 — Country singer June Carter Cash (1929), Olympic champion sprinter Wilma Rudolph (1940), and Supreme Court Justice Clarence Thomas (1948)
- 24 — Boxing champ Jack Dempsey (1895), musician Mick Fleetwood (1942), actress Mindy Kaling (1979), and soccer great Lionel Messi (1987)
- 25 — Author George Orwell (1903), actor Clint Eastwood (1930), singer Carly Simon (1945), Supreme Court Justice Sonia Sotomayor (1954), and singer George Michael (1963)
- 26 — Baseball inventor Abner Doubleday (1819), athlete Babe Didrikson Zaharias (1911), baseball Hall of Famer Derek Jeter (1974), and singer Ariana Grande (1993)
- 27 — Deaf/mute/blind author/lecturer Helen Keller (1880), Bob "Captain Kangaroo" Keeshan (1927), politician Ross Perot (1930), actress Julia Duffy (1951), and director/producer J.J. Abrams (1966)
- 28 — Composer Richard Rodgers (1902), **actor/director Mel Brooks** (1926), actresses Gilda Radner (1946) and Kathy Bates (1948), Hall of Fame quarterback John Elway (1960), actor John Cusack (1966) and rich guy/inventor Elon Musk (1971)
- 29 — Actors Gary Busey (1944) and Richard Lewis (1947)
- 30 — Actress Susan Hayward and singer Lena Horne (1917), actress Lisa Kudrow (1963), boxing champ Mike Tyson (1966), and Olympic swimming champ Michael Phelps (1985)

