

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



Issue 61 August 2024

reetings EFCOG PDWG Practitioners! We are headed for the middle of summer and many of us are enjoying vacations with our families and friends at our favorite summertime destinations. Please keep safety as your #1 priority and exercise your preplanning skills to achieve a great outing for all!

Speaking of preplanning, this month's *Practitioner* takes an up-close look at the 413.3 CD Gate process with an emphasis on the reviews within the CD Gate process to assure our project approach is effective, efficient and compliant with the Department of Energy (DOE) prescribed project management process. And in the safety realm, we'll discover the six most dangerous construction activities in our "It's Not One World" feature.

Reviews Within the 413.3 CD Gate Process

efore we dive into the CD Gate process, let's first take a look at EFCOG Best Practice (BP) #259 "Capital Asset Preplanning Compliance Review Checklist (CRC)". BP#259 will improve the project team knowledge of the compliant approach prescribed by DOE in the "Initiation, Definition, Execution, and Closeout" phases of capital and GPP projects. See BP#259 on the EFCOG webpage at this link: EFCOG PDWG BP#259 CRC Checklist.

Benefits will be realized in gaining upfront implementation of the 413 preplanning approach in flushing out differing and often incorrect interpretations of the order and its applicability. With contractor and customer agreement upfront, project stakeholders will be on the same page with a common understanding of how the project will proceed, allowing the project team to focus their collective energy on problem solving for the challenges that will be encountered during the "execution" phase.

Project Manager 413 Capital Asset Planning Compliance Review Checklist (CRC) for: Applicability Determinition / Justification / Training Completed / Assignment Responsibility / Review Completion and Sign off		Applicability		Narrative Justification if "No"	Training Required?		Assignment Responsibility	Activity Forecast Dates	
		Yes √	No √	Name of the second seco	Yes	No √	Name	Start	Finish
CD Gate Activities click the "EFCCC rows Training Express" Link to Access the training Material	Reference Material								
DOE 413.3B CD Gate Tables - Check Marks below Indicate Requirements or Need to Analyze if Applicable									
Prior to CD-0									
Perform Pre-Conceptual Planning activities that focus on the Program Offices' strategic goals and objectives, safety planning, design, development of capability gaps, high-level project parameters, a ROM cost range, and schedule estimates. Perform a Mission Validation independent Review on all Major System Projects. (Refer to DOE G 4313.3-9.) Approve a Mission Need Statement Document with recommendation from PM for projects with a TFC 2-\$100M. (Refer to DOE G 4313.3-17.) Independent Cost Review (ICR). For Major System Projects, or for projects as designated by the CE, PM will conduct an ICR For Major System Projects, the Project Management Risk Committee (PMRC) will review and analyze	æ								
the CD and make recommendations to the ESAAB, CE, or PME, as applicable, before a pproval. Program Requirements Document, For NNSA only, defines the ultimate goals which the project must satisfy. (Refer to NNSA Business and Operating Policy.) DOE-STD-1189-2016 For Hazard Category 1, 2, and 3 nuclear facilities, and to the specificity possible, document DOE expectations for Safety-in-Design									

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The CRC is both a preplanning tool and a living document to document the project management approach used to manage the project.

The CRC is used to facilitate CD Gate Tasks:

- Applicability determination for the CD-Gate process/narrative justification if not applicable,
- Staff training requirements for applicable supporting associated guides,
- Establishment of initial "Activity Forecast Dates"

While the CD Gate Process is required for Capital Project based on dollar "thresholds", it's use is also encouraged for Minor Construction Projects (MCPs)/General Plant Projects (GPPs) to achieve the desired beneficial results.

The CRC also provides links to important CD-Gate activity supporting guidance in addition to the 413 referential material, in the order of appearance.

The "413 Quick Reference Matrix" puts valuable guidance information in one place making it quick and easy to track down answers to your questions. The CRC can serve as the central hub for your information needs, 413 task/activity applicability, narrative justification for deviations, training requirements for staff, lead role assignment, and preplanning activity forecast dates.

THE PRACTITIONER

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Project Manager 413 Capital Asset Planning Compliance Review Checklist (CRC) for: Applicability Determinition / Justification /							
Training Completed /Assignment Responsibility / Review Completion and Sign-off							

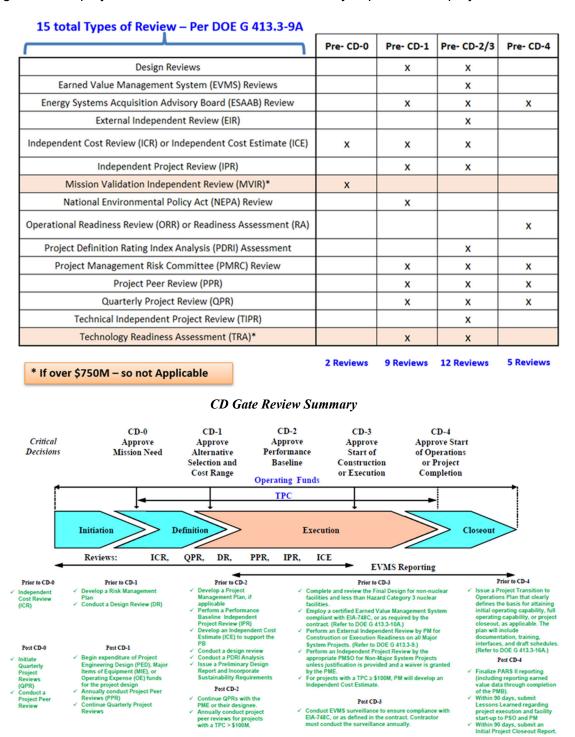
CD Gate Activities Click the "EFCOS FOWG Training Express" Unit to Access the Training Meterfal	Reference Material	
DOE O 413.3B Program and Project Management for the Acquisition of Capital Assets	nerence moterior	
DOE G 413 3-1 MD&C Using System Engineering		
DOE G 413 3-5A Performance Baseline Guide	1	
DOE G 413 3-7A Risk Management Guide	1	
DOE G 413 3-9A Project Reviews for CAP Assets	1	
DOE G 413 3-12 Chg. 1 PDRI Guide	1	
DOE G 413.3-13 Acquisition Strategy	EFCOG PDWG Training	
DOE G 413.3-15A Project Execution Plans	Express	
DOE G 413.3-17 Mission Need Statement		
DOE G 413.3-18A Integrated Project Team		
DOE G 413.3-20 Change Control Management		
DOE G 413.3-21A Cost Estimating Guide		
DOE G 413.3-22 Analysis of Alternatives Guide		
DOE G 413.3-24 Planning and Scheduling		
Other 413.3 Reference Material		
(In Order of Appearance) DOE-STD-1189-2016 Integration of Safety into the Design Process	DOE-STD-1189-2016	
DOE O 361.1C Acquisition Career Management Program	DOE O 361.1C	
DOE O 436.1 Departmental Sustainability	DOE 0 436.1	
DOE G 413.3-6A High Performance Sustainable Building	DOE G 413.3-6	
DOE G 413.3-22, Analysis of Alternatives Guide (Reference GAO 16-22)	DOE G 413.3-22	
DOE G 450.4-1C Integrated Safety Management System Guide	DOE G 450.4-1C	
DOE O 414.1D Quality Assurance	DOE O 414.1D	
DOE G 413.3-2 Quality Assurance Guide for Project Management	DOE G 413.3-2	
DOE O 470.4B Safeguards and Security Program	DOE O 470.48	
DOE G 413.3-3A Safeguards and Security for Program and Project Management	DOE G 413.3-3A	
DOE O 451.1B National Environmental Policy Act Compliance Program	DOE O 451.18	
DOE G 413.3-4A Technology Readiness Assessment Guide	DOE G 413.3-4A	
DOE G 413.3-108 Integrated Project Management Using the Earned Value Management System	DOE G 413.3-108	
DOE G 413.3-2 Quality Assurance Guide for Project Management	DOE G 413.3-2	
DOE P 451.1 National Environmental Policy Act Compliance Program	DOE P 451.1	
DOE G 413.3-16A Project Completion/Closeout Guide	DOE G 413.3-16A	
DOE O 425.1D Verification of Readiness to Start Up or Restart Nuclear Facilities	DOE O 425.1D	
DOE O 430.1C Real Property Asset Management	DOE 0 430.1C	

413 Quick Reference Matrix

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CD Gate Reviews - Trust but Verify

Where the CRC hovers around the core components of the CD Gate process tasks/activities, several reviews are included to assure the building blocks are in place as required by the process with the added benefit of keeping the entire project team on track and focused on key aspects of the project.



Project Reviews - A Closer Look

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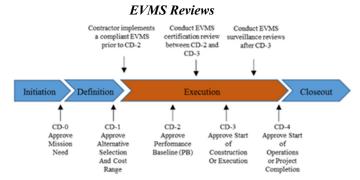
It is imperative that all understand and strive to meet the requirements and expectations of the CD Gate process and Project Reviews to effectively, efficiently, and successfully support the desired outcome of all stakeholders.

DOE G 413.3-9A - "Project Reviews for Capital Asset Projects"

In addition to the 413.3 Order CD Gate Process identified above, you can get additional information on the What, Why, When, Who, and Where of reviews from the 9A guide, of which there are 15. Here is a look at a few select review types:

Design Reviews Perform conceptual design prior to CD-1; perform preliminary and final design prior to CD-2 for Hazard Category 1, 2, and 3; perform final design review prior to CD-3 for non-nuclear facilitie Closeout CD-0 CD-1 CD-2 CD-3 CD-4 Approve Performance Approve Start Approve Iternativ Approve Start of of And Cost Or Execution or Project

- Results?
- Are documented in a report forwarded to the FPD and project team for their information and action as the project progresses through the stages of design.
- Why?
- Design reviews confirm the level of maturity a project's planning and designs have attained. Technical Independent Project Reviews (TIPRs) and External Independent Reviews (EIRs) consider the results of the design reviews.
- When?
- Conceptual Design prior to CD-1.
- Preliminary Design prior to CD-2 approval.
- For Hazard Category 1, 2, and 3 Nuclear Facilities, Final Design Review prior to CD-2.
- Non-nuclear and less than Hazard Category 3 Nuclear, final design prior to CD-3.
- Who?
- Project Team The design manager leads reviewers external to the project to conduct design reviews with support from the entire project design team.
- Where?
- At the Project Site



- Why?
- DOE contracts that address capital asset acquisitions with a TPC greater than \$50M typically invoke EVMS FAR clauses. A compliant EVMS enables the project team to objectively monitor scope, schedule, and cost during project execution.
- When?
- EVMS compliance assessment is conducted on the contractor's system at various times, based on contractual requirements, the lifecycle of the project, and implementation concerns. The type of review conducted depends on the situation causing the review.
- Who?
- For contracts where there are applicable projects having a TPC of \$100M or greater, PM conducts the EVMS review.
- Contractors supporting applicable projects with a TPC between \$50M and \$100M maintain an EVMS compliant with EIA-748
 - No required review, but PM may review if requested by PMSO.
- Where?
- EVMS reviews are normally conducted at the project site with the contractor providing the EVM system description and data to support the review.
- However, they could be performed at an offsite location, if sufficient information and personnel to support the review process are available

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

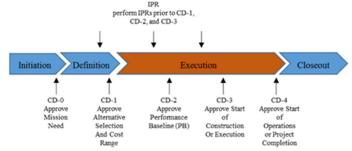
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External Independent Review

EIR When a project has a BCP Another EIR to validate Prior to CD-2 Prior to CD-3 the PB Initiation Definition Closeout CD-2 CD-0 CD-1 CD-3 CD-4 Approve Start of Approv Approve Performance Approve of Approve Mission Alternative Need Selection Baseline (PB) Operations

- Results?
- Appear in a report that PM-1 endorses and forwards to the PME for review and action. The report may include major findings, findings, and observations.
- Why?
- Provide PMEs, senior leaders within DOE, and Congress an unbiased assessment of a project's potential for meeting proposed scope, KPP, schedule and cost commitments.
- For MSPs, a second EIR that precedes CD-3 assesses the readiness for construction or execution while reconfirming the completeness and accuracy of the PB. This pre-CD-3 EIR for MSPs considers final drawings, specifications, and construction or execution plans.
- When?
- PM performs an EIR prior to CD-2 for all capital asset projects with a TPC greater than or equal to \$100 million.
- PM performs a construction/execution readiness EIR prior to CD-3 for MSPs per DOE O 413.3B.
- Prior to a BCP, PM will perform another EIR to validate the BCP PB.
- Who?
- PM for projects with a TPC of \$100M or greater in coordination with the FPD and program office representative. The teams consist of senior-level technical personnel and subject matter experts from the project as well as outside experts, as appropriate.
- Where?
- Normally occur at Project site.

Independent Project Review (IPR)



- · Results?
- Appear in a report that the PMSO completes and forwards to the PME for review and action.
- · The report will include findings and recommendations.
- The PMSO tracks findings and recommendations that require follow up actions and then determines the success of implemented corrective actions at the next project review.
- Findings from IPRs conducted in support of a critical decision may require resolution prior to approval of the critical decision.
- Why?
- Identifies technical and programmatic risks and uncertainties along with activities that would mitigate the risks.
- When?
- Prior to CD-1 (in the form of a TIPR) for Hazard Category 1, 2, and 3 nuclear facilities
- Prior to CD-2 (to validate the PB) for projects with a TPC less than \$100M when the program has a PMSO.
- Who?
- PMSOs conduct IPRs to validate the PB for projects with a TPC less than \$100M.
- The teams consist of senior-level technical personnel and SMEs from the project as well as outside experts, as appropriate.
- Where?
- Normally occur at Project site.

Implementing and adhering to the DOE prescribed project management approach and embracing the robust reviews identified for each CD Gate process will provide the best path to successful capital projects, and Minor Construction/General Plant Projects if applied.



It Is Not One World

Top 6 Most Dangerous Construction Activities

Fix the Six

Ished and falls in line with OSHA requirements. Regularly reviewing and training employees to the standard of the applicable codes and regulations is a proactive way to ensure compliance. When your program serves up the right information to employees, you create a culture that highlights safety. This is especially true if you work for clients that require an even more stringent prequalification process.

"In 2018, the construction industry led all industries with 1,008 fatal work injuries."
Source: U.S. Bureau of Labor Statistics

With so many topics available for employee safety, there are a few that should receive your attention a little more. This is because these topics/activities are generally considered the most hazardous, the most cited, and the most risky. While regular trainings are required, sometimes safety knowledge is taught via tribal knowledge transfer. Additional formalized training, especially for these high risk topics, is a huge improvement for cultivating a safety culture. Here are the top 6 training courses for the construction industry that address high risk activities:

1. Fall Protection and Ladder Safety

Falls are the leading cause of construction-worker fatalities, accounting for one-third of on-the-job deaths in the industry. And, according to CPWR (Center for Construction Research and Training), 61% of fatal falls in construction occurred in small businesses with fewer than 10 employees.

The layers of <u>OSHA regulation</u> that protect workers focus on proper use and installation of safety systems, supervision, safe work procedures, maintenance and more. Regarding <u>ladder safety</u>, it's important to review selecting the right ladder, proper set up, precautions and emergency guidelines. Most fall and ladder accidents are preventable when following OSHA guidelines.



2. Electrical Safety: Qualified and Non-qualified

Construction industry accounted for 54% of all electrical fatalities, the same percentage as in 2017. The good news is that overall electrical fatalities are trending downward.

The first step towards electrical safety is controlling or eliminating factors in your workplace that pose electrical hazards. Ground fault electrical shock happens to be the most common electrical hazard in construction sites. With the appropriate training, your employees are equipped to use safe work practices.



Top Six Most Dangerous Construction Activities

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IMPORTANT Only "qualified" persons should work directly with exposed energized parts. High voltages, grounding, electric current, arcing and the lack of guarding are among the inherent hazards of electricity these "qualified" persons should be familiar with.

3. Excavations: Trenching/Shoring

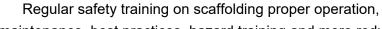
Excavation and trenching are among the most hazardous construction operations, with cave-ins posing the greatest risk. With 100 lbs. per square foot (psf) stress load on a cubic foot column of soil, a vertical load five feet down is 500 psf. Without proper safety procedures, buried alive can become a very real occurrence.

It's up to you and your employer to provide a safe work environment and ensure that workers follow safety procedures, but it's also up to your employees to follow safety regulations and safe work procedures.



4. Scaffolding

Scaffolds can be erected at heights in excess of 125 feet – a height equal to 3.5 yellow school buses stacked, end to end. At these heights, more than 4,500 injuries and 60 deaths stem from scaffold-related incidents happen each year. If your workers work at height using scaffolding, the design and construction must be closely monitored to protect workers from falls and other hazards.





maintenance, best practices, hazard training and more reduces the potential for accidents.

5. Heavy Equipment — Earthmoving and Cranes

Vehicles and mobile heavy equipment were a major source of fatalities in construction, resulting in 7,681 deaths from 1992 to 2010, about 404 deaths annually. Following the injury trend in construction, the number of such deaths reached 470 in 2006 and dropped to 271 in 2010. Most of those deaths are with laborers – almost double the next type of worker.

This category might be most prone to tribal knowledge, with machines that have immense power if used improperly. Regular, formalized training – even beyond what is required – will contribute to a culture of safety knowledge.



Top Six Most Dangerous Construction Activities

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6. Confined Space Entry

Are your workers one of the 2.1M workers that enter permitted confined spaces annually? In 2018, NIOSH investigations of confined space incidents revealed that 85% of the time a supervisor was present, 15% had confined space training, and 0% had a rescue plan.

75% of the deaths involved routine maintenance and repair. It's vitally important for your workers to be able to recognize a confined space, know the dangers to watch for, test to see if the space is safe, evaluate how to make it a safe work environment, and finally, continue to monitor the space.



Regular Training Builds Safety Culture

Whether your company has a narrow focus of construction activities, or has more of a broad spectrum of activities, hazards are a part of any job. It can be hard to address them when you have many employees, as well as departments, with different work conditions.

There is regular training required by OSHA, but consider additional training – above what is required – for those activities that have <u>increased risk and hazards</u>. By regularly educating and training your employees about these high risk workplace activities, you better ensure they follow the right standards and regulations in your company. More importantly, you contribute to a culture of safety, dedicated to keeping employees safe.

While requirements may vary between industries and locations, effective, ongoing safety training should be a priority for businesses of all types and sizes.

From <u>Safety Services Company</u>

abor Day is Monday, September 2, and is the last major outdoor holiday of the summer. If you plan on participating in any of the traditional holiday activities, below are some safety tips to keep in mind as you celebrate.

LABOR DAY SAFETY TIPS

GRILL RESPONSIBLY



An average of 19k patients went to the ER annually for grill-related injuries between 2013 and 2017.

All grills should only be used outdoors, placed away from wood objects and foliage, and young children and pets should be kept at least 3 feet away. Keep grills clean by removing fat buildup and grease from the grates and the tray below and never leave a grill unattended.

Camp & Hike Safely

Camping and Hiking in Wyoming have particular issues

Be careful with campfires, particularly in the dry climate. Be bear aware and keep food out of reach. Have a plan and tell someone where you're going and when you'll be back. Wear proper clothing for being outside. Pay attention to the weather and bring the proper necessities.



Drink Responsibly



An estimated 6 Americans per day die from alcohol poisoning

Drink water whenever you're thirsty, set a limit on the amount of alcohol you plan to consume and stick with it, and for every alcoholic drink you consume, drink an equal amount of water. NEVER operate vehicles, use fireworks, or swim while under the influence and ALWAYS have a driver available to give you a ride.

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

EVENTS

- 1 World War 1 began (1914), the first Six Flags amusement park opened in Texas (1961), MTV made its debut (1981), and the World Wide Web was launched (1990).
- 2- The Declaration of Independence was signed (1776), President Warren G. Harding died (1923), the Vietnam War began (1964), and Iraq invaded Kuwait (1990).
- 3 Christopher Columbus set sail from Spain (1492), Calvin Coolidge became president (1923), and the NBA was founded (1949).
- 4 Champagne was invented (1693), the Mexican Farm Labor Agreement was signed between the U.S. and Mexico (1942), "Talladega Nights" was released in theaters (2006), and Oscar Pistorius became the first amputee runner to compete at the Olympics (2012).
- 5 The first federal income tax was imposed (1861), the first traffic light went into service in (1914), actress Marilyn Monroe was found dead (1962), and the NBA and ABA merged (1976).
- 6 The first execution by electric chair was carried out (1890), the first atomic bomb was dropped on Japan (1945), and African-Americans were guaranteed the right to vote (1965).
- 7 The Purple Heart was created (1782), **Earth was first photographed from space** (1959), Congress passed the Gulf of Tonkin Resolution (1964), President George H.W. Bush ordered Operation Desert Shield (1990), and seven crew members of a trapped Russian submarine were rescued (2005).
- 8 The "invincible" Spanish Armada was defeated by the English navy (1588), President Richard Nixon announced his resignation from office (1974), and the term "global warming" appeared for the first time (1975).
- 9 Cartoon character Betty Boop debuted (1930), the second atomic bomb was dropped on Japan (1945), and Gerald Ford became president (1974).
- 10 Missouri became the first state west of the Mississippi River (1821), the electric guitar was patented (1937), and "Red Dawn" premiered as the first movie with a PG-13 rating (1984).
- $11-{\rm Hip\hbox{-}hop}$ was created (1973), the longest major league baseball strike began (1994), and actor Robin Williams died (2014).
- 12 The Spanish-American War ended (1898), and the largest ever T-rex skeleton was discovered (1990).
- 13 The Aztec empire fell to the Spaniards (1521), construction began on the Berlin Wall (1961), "Fast Times at Ridgemont High" debuted (1982), baseball legend Mickey Mantle died (1995).
- 14- The Social Security Act was signed (1935), and the Whiffle Ball was patented (1953).
- $15\,-\,$ The Panama Canal opened (1914), and the Woodstock Music Festival opened (1969).
- 16 The Klondike Gold Rush began (1896), baseball legend Babe Ruth died (1948), the punk rock revolution began (1974), and singer Elvis Presley died (1977).
- 17 The electric automobile self-starter was patented (1891), the Pulitzer Prizes were established (1913), Lou Gehrig became baseball's first ironman (1933).
- 18- Montgomery Ward issued its first mail-order catalog (1872), and basketball legend Larry Bird retired (1992).
- 19 The first race was held at the Indianapolis Motor Speedway (1909), and Adolph Hitler became president of Germany (1934).
- $20-{\rm The\ National\ Football\ League}$ was organized (1920), and the Soviet Union invaded Czechoslovakia (1968).
- 21 -Oldsmobile was founded (1897), Hawaii became the 50th U.S. state (1959), the Ruby Ridge standoff began (1992), and swimmer Michael Phelps won a record 8th Olympic gold medal (2004).
- 22 The first America's Cup yacht race was held (1851), the International Red Cross was founded (1864), and Nolan Ryan recorded his 5,000th strikeout (1989).
- 23- The tire chain was patented (1904), baseball legend Pete Rose was banned for life (1989), and the first case of West Nile virus in the U.S. was reported (1999).
- 24 Mt. Vesuvius erupted, instantly burying two cities (79), British troops set the White House on fire (1814), and the waffle iron was patented (1869).
- 25 The first person swam across the English Channel (1875), "The Wizard of Oz" premiered (1939), and Paris **was liberated by Allied troops** (1944).
- 26 Women gained the right to vote (1920), the first televised baseball game aired (1939), and aviator Charles Lindbergh died (1974).
- 27-Mt. Krakatoa erupted in the world's most powerful volcanic blast (1883), and the first edition of "The Guinness Book of Records" was published (1955).
- 28 Martin Luther King, Jr. made his "I have a dream" speech (1963), 69 people died during a disaster at the Ramstein Air Show in Germany (1988), and Prince Charles and Princess Diana divorced (1996).
- 29 The Soviet Union detonated its first nuclear test bomb (1949), and Hurricane Katrina made landfall on the Gulf Coast (2005).
- 30 Thurgood Marshall became the first African-American Supreme Court justice (1967), and *The Late Show with David Letterman* premiered (1993).

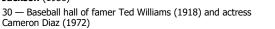


BIRTHDAYS

- 1 Explorer William Clark (1770) and national anthem author Francis Scott Key (1779)
- 2 **Actors Carroll O'Connor** (1924) and Peter O'Toole (1932), and actress Mary-Louise Parker (1964)
- 3 Singer Tony Bennett (1926), actor Martin Sheen (1940), entrepreneur Martha Stewart (1941), and retired football star Tom Brady (1977)
- 4 Queen Elizabeth, the Queen Mother of England (1900), jazz musician Louis Armstrong (1901), actor Billy Bob Thornton (1955), 44th President Barack Obama (1961), baseball star Roger Clemens (1962), car racer Jeff Gordon (1971), and Duchess Meghan Markle (1981)
- 5 Astronaut Neil Armstrong (1930), actress Loni Anderson (1946), and basketball hall of famer Patrick Ewing (1962)
- 6 Comic actress Lucille Ball (1911), pop artist Andy Warhol (1928), and basketball hall of famer David Robinson (1965)
- 7 Actor David Duchovny (1960) and actress Charlize Theron (1975)
- 8- Actor Dustin Hoffman (1937), tennis star Roger Federer (1981), and singer Shawn Mendes (1998)
- 9 Actor Sam Elliott (1944), actress Melanie Griffith (1957), singer Whitney Houston (1963), hockey hall of famer Brett Hull (1964), athlete/football coach Deion Sanders (1967), and actress Gillian Anderson (1968)
- 10 President Herbert Hoover (1874), singers Jimmy Dean (1928), Ian Anderson (1947), and Patti Austin (1948), and actor Antonio Banderas (1960)
- 11 Author Alex Haley (1921), **wrestler Hulk Hogan** (1953), Apple co-founder Steve Wozniak (1950), and musician Joe Jackson (1955)
- 12 Filmmaker Cecil B. DeMille (1881), country singer Buck Owens (1929), actor George Hamilton (1939), and tennis champ Pete Sampras (1971)
- 13- Filmmaker Alfred Hitchcock (1899), golf legend Ben Hogan (1912), Cuban president Fidel Castro (1926), and singer Dan Fogelberg (1951)
- 14 Comedian/actor Steve Martin (1945), "Far Side" cartoonist Gary Larson (1950), basketball star Magic Johnson (1959), actress Halle Berry (1968), and football star/TV commentator Tim Tebow (1987)
- 15 French emperor Napoleon Bonaparte (1769), chef Julia Child (1912), actor Ben Affleck (1972), and actress Jennifer Lawrence (1990)
- 16 Football star/sportscaster Frank Gifford (1930) and his wife, TV personality Kathy Lee Gifford (1953), director James Cameron (1954), singer Madonna (1958), and actor Steve Carell (1962)
- 17 Frontiersman Davy Crockett (1786), film pioneer Samuel Goldwyn (1882), actress Mae West (1893), and actors Robert De Niro (1943) and Sean Penn (1960)
- 18 Explorer Meriwether Lewis (1774), **baseball hall of famer Roberto Clemente** (1934), and actors Robert Redford (1937) and Patrick Swayze (1954)
- 19 Aviator Orville Wright (1871), fashion designer Coco Chanel (1883), *Star Trek* creator Gene Roddenberry (1921), 42nd U.S. President Bill Clinton (1948) and actors Matthew Perry and Christian Slater (1969)
- $20-23 \rm rd$ U.S. President Benjamin Harrison (1833), boxing promoter Don King (1931), singer Isaac Hayes (1942), TV journalist Connie Chung (1946), and TV weatherman Al Roker (1954)
- 21- Bandleader Count Basie (1904), basketball legend Wilt Chamberlain (1936), and singer Kenny Rogers (1938)
- 22 Composer Claude Debussy (1862), science fiction writer Ray Bradbury (1920), **Desert Storm commander Gen. H. Norman Schwarzkopf** (1934), actress Valerie Harper (1940), football hall of fame coach Bill Parcells (1941), and singer Tori Amos (1964)



- 23- Actor/dancer Gene Kelly (1912), actresses Barbara Eden (1931) and Shelley Long (1949), singer Rick Springfield (1949), and basketball star Kobe Bryant (1978)
- 24- Baseball ironman Cal Ripken Jr. (1960), TV personality Craig Kilborn (1962), and actress Marlee Matlin (1965)
- 25- Composer/conductor Leonard Bernstein (1918), actor Sean Connery (1930), TV personality Regis Philbin (1933), director Tim Burton (1958), and country singer Billy Ray Cyrus (1961)
- 26 Actress Melissa McCarthy (1970) and actor Macaulay Culkin (1980)
- 27 36th U.S. President Lyndon B. Johnson (1908) and Mother Teresa (1910)
- 28 Author Leo Tolstoy (1828), and singers Shania Twain (1965) and LeAnne Rimes (1982)
- 29- Actor Elliott Gould (1939), and "The King of Pop" Michael Jackson (1958)



31— Comedian/actor Buddy Hackett (1928), baseball hall of famer Frank Robinson (1935), singer Van Morrison (1945), and actor Richard Gere (1949)