

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



Issue 32 March 2022

Continuing to 'March' through DOE's Project Management Principles

reetings Project Delivery Working Group Practitioners. This month's edition of the *Practitioner* maintains our focus on project management through our ongoing article series titled "413.3B and Your Project", Part 2.

To refresh your memory, we are taking a look at the application of the DOE 413.3B "Principles", and in particular "Appendix C", for both the Capital and General Plant Project (GPP)/Minor Construction project arena.

The "Project Management Principles" are the Department's framework for successful project execution. When read, understood, implemented, and executed correctly, the process offers the shortest distance to sustainable, repeatable, and successful project management.

Also included in this edition is a somewhat satirical look at project management in our "It is not One World" article. At least we hope it is satirical at your site. (3)

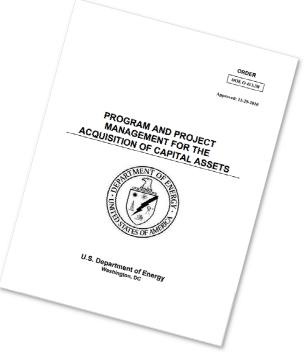
413.3B and Your Project: Part 2

elcome back to our detailed look at "413.3B and Your Project". In Part 1, second paragraph in, you see this statement:

"The principles (see Appendix C, Paragraph 1.a.-I.) as set forth in this Order apply to all capital asset projects. They also apply to General Plant Projects (GPPs) for which the approved total estimated cost does not exceed the minor construction threshold, using a tailored approach."

The "**Principles**" are the thing! The "Project Management Principles" is the Department's *framework for successful project execution*. When read, understood, implemented, and executed correctly, the process offers the shortest distance to project success.

While items "a" through "I" (next page) represent a summary of the "framework" headliners, the entire DOE O 413.3B represent the "principles" of *sustainable, repeatable, and successful project management*. Within Appendix C there are 27 Topical Areas.



413.3B and Your Project

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The primary difference when applying 413.3B on a Capital Project versus a General Plant Project (GPP) or Minor Construction project is the approval authority. For GPP's and Minor Construction the approval authority has been extended to the field office. However, the authority transfer does not relieve the contractor from employing the project management structure outlined in 413.3B. Meaning, where an approval is required, an approval authority at the field office (for GPP's and minor construction projects) must be identified and utilized.

- 1. Project Management Principles. "This is the Department's framework for successful project execution:"
 - a. Line management accountability.
 - b. Sound, disciplined, up-front project planning.
 - c. Well-defined and documented project requirements.
 - d. Development and implementation of sound acquisition strategies that incorporate effective risk handling mechanisms.
 - e. Well-defined and managed project scope and risk based PBs and stable funding profiles that support original cost baseline execution.
 - f. Development of reliable and accurate cost estimates using appropriate cost methodologies and databases.

THE PRACTITIONER

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- g. Properly resourced and appropriately skilled project staffs.
- Effective implementation of all management systems supporting the project (e.g., quality assurance, integrated safety management, risk management, change control, performance management and contract management).
- i. Early integration of safety into the design process.
- j. Effective communication among all project stakeholders.
- k. Utilization of peer reviews throughout the life of a project to appropriately assess and make course corrections.
- I. Process to achieve operational readiness is defined early in the project for Hazard Category 1, 2, and 3 nuclear facilities
- 2. **Acquisition Strategy (AS)**. An AS is a key activity formulated by the IPT leading up to CD-1. The AS is the FPD's overall plan for satisfying the mission need in the most effective, economical, and timely manner. For more details, see FAR 34.004, DOE Acquisition Guide, Chapter 7, and DOE G 413.3-13.

Supporting the execution of the AS is the procurement strategy that must be documented in writing as prescribed by FAR 7.1 and for major systems acquisition, FAR 34.004. While the AS represents a high-level plan which is approved through the CD review and approval process, the information and analysis required as part of an AP, if applicable, provides greater focus on the analysis and strategies needed to appropriately execute procurements in

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accordance with sound business practices, statutory, regulatory and policy requirements. Typically, the AP will not be formulated until after the CD authority has selected the programmatic approach as part of CD-1. The review and approval of the AP resides within the contracting authority of the Senior Procurement Executive or their designee. Therefore, approval of the AS by the PSO cannot be presumed to constitute approval of the AP.

While the approval of the AS and the acquisition planning processes may be bifurcated, it is critical that the planning and formulation are aligned. The early formulation of an IPT (including the assignment of a contracting officer), the balance in its composition, and continuity in the membership is critical to the integration and alignment of the AS and acquisition planning processes.

- 3. Analysis of Alternatives. The responsible program office is required to conduct an analysis of alternatives (AoA) that is independent of the contractor organization responsible for managing the construction or constructing the capital asset project. The AoA will be conducted for projects with an estimated TPC greater than \$50M prior to the approval of CD-1 and may also be conducted when a performance baseline deviation occurs or if new technologies or solutions become available. This determination will be made by the PME. The AoA will be consistent with published GAO best practices. Refer to GAO-16-22, DOE and NNSA Project Management: Analysis of Alternatives Could Be Improved by Incorporating Best Practices. Note: Resist the temptation to blow past this step, irrespective of the dollar threshold, and particularly when working with a GPP or minor construction project.
- 4. Baseline Clarity. There is only one original PB and it is documented at CD-2 approval. The PB represents the Department's commitment to Congress to deliver the project's defined scope by a particular date at a specific cost. Cost estimates in advance of CD-2 do not represent such commitments. Also, there should be clarity over the terms PB and Performance Measurement Baseline (PMB) as they are different. The former is the project's baseline, and the latter is for use by the EVMS. Refer to DOE G 413.3-10A for further clarification.

FPDs, contracting officers and program managers are accountable for ensuring contract and project documentation is complete, up-to-date, and auditable. Project baseline documentation must clearly define scope, key performance parameters, and the desired product, capability, and/or result. At project completion, there should be no question whether the objectives were achieved. Contracts and M&O work authorizations must clearly reflect project objectives and scope. Changes, especially to project objectives, need to be executed through a timely, disciplined change control process. Significant changes should be the exception, rather than the norm.

5. **Cost Estimating**. The authority and accountability for any project, including its costs, must be vested firmly in the hands of the FPD. Some cost estimate, or cost range, should be provided at each CD gateway, but the degree of rigor and detail for a cost estimate should be carefully defined, depending on the degree of confidence in project scale and scope that is reasonable to expect at that stage. Whatever figure or range that is provided should explicitly note relevant caveats concerning risks and uncertainties inherent in early

413.3B and Your Project

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estimates at CD-0 and CD-1 stages given the immature requirements definition at this juncture. A project owner should never be the sole cost estimator, at any stage (i.e., from CD-0 on), given the inherent conflict of interest. The second cost estimator should come from outside of the line manager's chain of command, to avoid conflict of interest.

Established methods and best practices will be used to develop, maintain, monitor, and communicate comprehensive, well-documented, accurate, credible, and defensible cost estimates. Cost estimates shall be developed, maintained, and documented in a manner consistent with methods and the best practices identified in DOE G 413.3-21, GAO Cost Estimating and Assessment Guide (GAO-09-3SP), and, as applicable, with the Federal Acquisition Regulation (e.g., FAR Subpart 15.4 – Contract Pricing; FAR Subpart 17.6 – Management and Operating Contracts), Office of Management and Budget Circular A-11, Preparation, Submission, and Execution of the Budget, and Department of Energy Acquisition Regulation (DEAR) Subpart 915-4 – Contract Pricing

That all for this month's installment of "413.3B and Your Project." Please stay tuned as we march down the important remaining "Principles" of "Appendix C" in next month's edition of the *Practitioner*.

It Is Not One World Project management principles - 10 excellent ways to fail a project

A satirical look at how to fail at Project Management

By Stephen Warrilow and Linky Van Der Merwe

ven though project management principles and project management as a profession have become respected and well-known in modern times, in some circles, the belief still persists that getting work done through projects is a waste of time. This is especially true for people who have seen many projects start with a bang only to fail miserably later on.

Let's look at some causes for project failure that leads to or re-enforces the belief that projects and having a management-by-project approach is a waste of time and money.

Project failure can easily be achieved by ignoring some core project management principles. So here are 10 excellent ways to FAIL a project:

1. Don't analyze the precise Business Needs for a project. Just start the work.

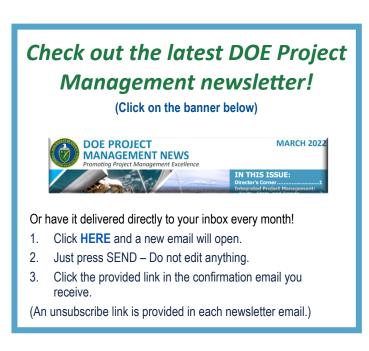


Project management principles - 10 excellent ways to fail a project

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- 2. Don't bother to define business benefits as derived from business needs being met. This way no benefits are realized as none were expected in the first place.
- 3. Don't waste time with detail planning. A high-level plan, or a graphical picture of the end result, is good enough to show people what the goals are and to get them going.
- 4. Don't bother identifying tangible deliverables for a project. Too much documentation is a waste of paper and who will read it anyway? Just fix your attention on the end goal.
- 5. Use any available resources (people), as long as the work gets done. Don't waste time on precise role descriptions and finding the right people to do the job.
- 6. Don't make the project manager responsible and accountable for the project outcome. Accountability should come from the project team members. Keep them responsible to make the project happen.
- 7. Once a project plan is in place, don't bother to follow-up. Each person should commit to what they need to do and that's it.
- 8. Communication should be just enough to keep the project on track, don't over-complicate things by communicating too much or too often. Stakeholders (people with a vested interest in the project) can ask if they need more information.
- When a project team starts working together, they will build their own momentum without the project manager facilitating the process. Teams will work together without team building and team development.
- 10. As long as the project manager is technically competent, the leadership abilities can always be developed later. Surely, you will recognize some of these symptoms of failing projects that you have witnessed or that you may have been a part of. As stupid as it may sound, if even 3 or more of these project management principles are lacking in any project, it is doomed to fail.

A failed project is recognized by the fact that it is late, over budget and/or it lacks quality, which means it did not deliver according to requirements and expectations as agreed up-front. Worst of all, the project was never finished! (Have you ever heard of sunk money? This is usually how projects are referred to when they are cancelled half-way).



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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), and "The Star-Spangled Banner" officially became America's national anthem (1931)
- 4 The first session of the U.S. Congress was held (1789), football pioneer Knute Rockne was born (1888), 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), and tough guy Chuck Norris (1940), actress Sharon Stone (1958) and singer Carrie Underwood (1983) were born
- 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), and 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 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 in was flown (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 (1980)
- 22 The Stamp Act was imposed on the American colonies (1765), the first Stanley Cup championship was played (1894), actor William Shatner (1931) and sportscaster Bob Costas (1952) were born, 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), and the Fascist party was founded (1919)
- 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)



REAGAN SHOT!

AIDE ALSO INJURED; SUSPECT CAPTURED

- 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 vicepresident Al Gore (1948) were born, the longest major league baseball strike
 ended (1995), and The Matrix opened in theaters (1999)