UFN Prioritization Scoring

The criteria below are used to score Unresolved Facilities Needs (UFN's) when directed by AP-242, *Facilities Deficiency Tracking Process Unresolved Facilities Needs Process & O&M Work Order Priority Process*. This scoring is not used for maintenance requests.

- **Mission Dependency** (Weight: 10)

  Mission Dependency Category (from FIMS) is:

  - Mission Critical, Nuclear Weapons. (5)
  - Mission Critical, Non-Nuclear Weapons. (4)
  - Mission Dependent, Not Critical. (3)
  - Not Mission Dependent (1)

  Sample Problem: A utility project will replace buried exterior chilled water piping in Tech Area I which is considered a Site system.

  Solution: From FIMS, Site Chilled Water is categorized as Mission Dependent, Not Critical. Score Mission Dependency as (3). (Note: although the chilled water system serves a number of Mission Critical buildings, the determination of Mission Dependency comes from FIMS for that asset.)

- **ES&H or Regulatory Impact** (Weight: 10)

  - Corrective action external to Sandia *or* results in high probability *and* high impact ES&H hazard. (For hazards that present an immediate life safety threat, refer to AP-242, under *Emergency Deficiencies,* and submit a UFN.) (5)
  - Not corrective action, but external requirement *or* results in high probability *or* high impact ES&H hazard. (4)
  - Internal corrective action, *or* results in medium probability *and* medium impact ES&H hazard. (3)
  - Internal requirement, not corrective action *or* results in medium probability *or* medium impact ES&H hazard. (2)
  - None of the above, *or* results in low probability *and/or* low impact ES&H hazard. (1)

  * **High impact** results in significant facility damages from fire, flood, theft, etc, (>$500K; significant fines or penalties (>$500k) involving loss of license or jail sentence; or significant cost from loss of production/testing or personnel time (>$500k, >200 people affected).
  ** **Medium impact** results in moderate property or equipment damages ($100k to $500k) fines or penalties or moderate cost from loss of production/testing or personnel time ($100k to $500k, 50 to 200 people affected).
  *** **Low impact** results in low property or equipment damages (<$100k), or low cost from production/testing or personnel time (<$100k, <50 people affected)

  Sample Problem: A project is the result of an internal corrective action and it also presents a low probability of resulting in an ES&H fine of $200k.

  Solution: The score for regulatory impact would be (3) based on internal corrective action. The score by ES&H concern is (2) based on medium impact. Score the project as (3).

- **Operational Risk** (Weight: 8)

  - Results in high probability *and* high immediate impact to building operations. (5)
  - Results in high probability *or* high impact to building operations. (4)
  - Results in medium probability *and* medium impact to building operations. (3)
  - Results in medium probability *or* medium impact to building operations. (2)

- Results in low probability *and/or* low impact to building operations. (1)

* **High impact** results in system shutdown or more.
** **Medium impact** results in equipment component shutdown.
*** **Low impact** results in other operational impacts not listed above.

Sample Problem: If not executed there is a medium probability that customer's operation will shutdown.

Solution: This is medium probability, high impact. Score = (4).

❑ **Simple Payback** (Weight: 6)

- <1 year (5)
- 1-5 years (4)
- 5-10 years (3)
- >10 years (2)

* Use TPC = TEC x 2. Simple Payback = Cost/Annual Savings.

Sample Problem: A project has a TEC (as entered on the UFN) of $60,000; annual electricity savings of $20,000/year; and other annual savings of $2,000/year. There is also a one time avoided cost of $3,000 by completing this project.

Solution: TPC = 60,000 x 2 = $120,000. Annual Savings = 20,000 + 2,000 = $22,000. Simple Payback = (120,000 – 3,000)/22,000 = 5.3 years. Score Economic Impact as (3), 5-10 year simple payback. Show calculations and include with UFN submission.

Alternative Calculation Methods: Analyze using the economic analysis tools as described in NIST Handbook 135, Life-Cycle Costing Manual. These tools include: Life Cycle Costs; Net Savings; Savings to Investment Ratio, Adjusted Internal Rate of Return, and Discounted Payback. Assign a score on a scale comparable to those shown for Simple Payback above.

❑ **Workforce Impact** (Weight: 6)

The number of people benefited (or avoided negative impact) by completing this work is:

- >300 (5)
- 100-300 (4)
- 50-100 (3)
- <50 (2)

Sample Problem 1: If not executed, failure could result in uncomfortable working conditions to 5 people located in the building handling all SNL/NM mail processing.

Solution 1: The number of people impacted is <50, score = (2).

Sample Problem 2: If not executed, failure could result in shut down of the same building which would halt mail delivery to all of SNL/NM.

Solution 2: The number of people impacted is >300, score = (5).

How UFN Prioritization Scoring is totaled and used:

Sample Problem: Assume a UFN scores: (5) for Mission Dependency; (3) for ES&H or Regulatory Impact; (5) for Simple Payback; (3) for Operational Risk; and (2) for Workforce Impact. The Total Prioritization Scoring is the sum of Score x Weight for each of the five categories. The total score = (5x10) + (3x10) + (5x8) + (3x6) + (2x6) = 150 out of a possible 200.

Program Managers use the UFN scores along with consideration of optimal year, deferred maintenance, possible planned building/system D&D, and type and availability of funding to bundle UFN's into projects and determine project execution by year.