Individual or group. (41 Responses)
Name (27 Responses)
Organization (27 Responses)
Group Name (14 Responses)
Lead Contact (14 Responses)
Contact Organization (14 Responses)
Question 1 (40 Responses)
Question 1 Comments (41 Responses)
Question 2 (40 Responses)
Question 2 Comments (41 Responses)
Question 3 (40 Responses)
Question 3 Comments (41 Responses)
Question 4 (40 Responses)
Question 4 Comments (41 Responses)
Question 5 (40 Responses)
Question 5 Comments (41 Responses)

_	_
	Individual
	Jennifer Wright
	SDG&E
	Yes
	Yes
	Yes
	Yes
	Yes
	Individual
	JAMES SMITH
	ASSET MANAGEMENET
	Yes
	Yes
	Yes
	Yes
	Yes
	Individual
	Si Truc PHAN
	Hydro-Quebec TransEnergie (NCR07112)

Yes
Yes
Yes
Yes
No
The minimum frequency of Vegetation Inspection should be based upon an average growth rates of smaller regions than all North America. Example, above the latitude of about 50 degrees North, the vegetation growth rates is limited. We think that Vegetation Inspection frequency should be relaxed to 3 years for those areas in Canada. As indicator of the minimum frequency requested in R6, we suggest to use a global vegetation index like the Normalized Difference Vegetation Index (NDVI). The NDVI has been in use for many years to measure the vigor of vegetation growth among other things. http://earthobservatory.nasa.gov/Features/MeasuringVegetation/
Individual
Michael Gammon
Kansas City Power & Light
Yes
No
These proposed Requirements, Measures and Violation Severity Levels as written do not give credit to the Transmission Owners for effectively monitoring their systems and taking appropriate actions in regard to vegetation clearing. Why does it make sense to punish and penalize a Transmission Owner for discovering an encroachment when they take the appropriate actions to remedy the condition before any facility outage occurs that results in compromising the reliability of the Bulk Electric System? These Requirements, Measures and VSL's should recognize the good practices of effective response to a vegetation condition and penalize ineffective response. Recommend the SDT consider including appropriate language to recognize effective remedial actions by Transmission Owners and by doing so, recognize effective efforts instead of punishing them. In addition, proving encroachments have not occurred will pose audit challenges in determining that encroachments have not occurred for the Auditors as well as Registered Entities. If no encroachments occur, then there is nothing to report or record. This is a weak platform to stand compliance on. Facility interruption events caused by vegetation contacts is definitively measurable and recordable. Recommend the SDT reconsider the concept of compliance with FAC-003 on the basis of sustained outages and remove the references regarding encroachments only. Recommend the SDT remove the LOWER VSL language from Requirements R1 and R2 and revise the Requirements and Measures to reflect the same.
Yes
Yes
No
1) R7 states "Each Transmission Owner shall complete 100% of its annual vegetation work plan...". We suggest to be consistent with all other sections of the rule that it should read, "Each Transmission Owner shall complete 100% of its annual vegetation work plan for all applicable lines...". Otherwise, leaves room for interpretation to include all lines including those not defined as applicable. Also require these same revisions to row R7 of the table "Time Horizons, Violation Risk Factors, and Violation Severity Levels". 2) In the "Additional Compliance Information" section Categories 1, 2, and 4 are each defined to have an A & B component to recognize the severity level difference for "applicable transmission lines" identified versus not identified "as an element of an IROL or Major WECC Transfer Path". However, Category 3 does not separate these two scenarios however it appears that the same distinction should apply. Additional comments: Vegetation Inspection Definition Recommend the SDT consider removing the conditional language, "that are likely to pose a hazard to the line(s) prior to the next". Vegetation inspections are not dependent on a predisposed condition of vegetation. Suggest the SDT remove that phrase and consider the following definition: The systematic examination of vegetation conditions on a maintained transmission line Right-of-Way under the Transmission Owner's control under a planned maintenance or inspection which may be combined with a general line inspection.

Individual
Joe Petaski
Manitoba Hydro
Yes
Yes
Yes
Yes
Yes
Group
SERC Vegetation Management sub-committee
Joe Spencer
SERC Reliability Corporation
No
We agree with the proposed definition as a replacement for active transmission ROW, however, in a review of NERC standards, the term ROW is not used except in FAC-003. It is therefore recommended that the term be removed from the NERC glossary.
Yes
Yes
Yes
Yes
Group
Arizona Public Service Company
Janet Smith, Regulatory Affairs Supervisor
Arizona Public Service Company
Yes
No
This is a reliability standard and the TO should know what its clearance needs are at all rated conditions, especially considering today’s technology. If the TO manages to this standard there is no need for R1 and R2.
No
The TO should be managing for reliability. The system is not static, like vegetation it moves and changes over time and that fluctuation should be taken into account to maintain reliability at all rated conditions.
No
The TVMP shall demonstrate the TO’s ability to manage the system at all rated conditions to maintain reliability.
Yes
Individual

Weston Davis
Central Maine Power Company - IberdrolaUSA
No
The definition does not define transmission owner responsibility for areas covered by “danger tree” rights. This area is outside the maintained width but for economic and social reasons the transmission owner can not remove all danger trees. Utilities have procedures in place to remove the hazard trees but it is not practical to remove all danger trees that have the potential to violate the MVCD should they fail. This area of the definition requires clarification.
Yes
Yes
Yes
Yes
Group
Hydro One Networks
Sasa Maljukan
Hydro One Networks Inc.
No
The revised definition of ROW is unclear in regards to the application of standards and/or historic records as a means of determining ROW width; is it necessary for a TO to select one method to apply in all cases, or can each span be treated in the manner deemed most appropriate by the TO? Additionally “blowout Standard” has not been defined in the document or in the technical paper, and therefore it is not clear exactly how this method would be applied, and subsequently defended under scrutiny.
Yes
Yes
Yes
Yes
Group
Salt River Project
Cynthia Oder
Cynthia Oder
Yes
Yes
Yes
Yes
Yes

Individual
Gordon Rawlings
BC Hydro
Yes
Yes
Yes
Yes
You could also include the term “maintenance standards”.
Yes
You could also include other documentation such as monthly financial and program variance reports. Additional Comments Table 1: R6 definitions could be clearer. Suggested clarification: VSL Lower – Greater than 95% of annual inspections complete but less than 100% complete. VSL Moderate – Greater than 90 % of annual inspections complete but less than 95% complete VSL High – Greater than 85% of annual inspections complete but less than 90% complete VSL Severe – Less than 85% of annual inspections completed Table 1 R7 definitions could be clearer. Suggested clarification: VSL Lower – Greater than 95% of annual work plan complete but less than 100% complete. VSL Moderate – Greater than 90 % of annual work plan complete but less than 95% complete VSL High – Greater than 85% of annual work plan complete but less than 90% complete VSL Severe – Less than 85% of annual work plan completed Table 2: This table includes a number of common nominal system voltages vs MVCD distances by altitude. However, some utilities have other non-standard voltages, in our case 287 kV, which forms a significant part of their system. It may be worthwhile for the standard to state what a utility should follow when a standard voltage class is not present – i.e. go to the next higher voltage MVCD if a particular voltage isn’t in the table, or direct the utility to do its own Gallett Equation calcuations for their unique voltage class. Otherwise, different utilities may create a non-standard solution that wouldn’t address the risk.
Group
Northeast Power Coordinating Council
Guy Zito
Northeast Power Coordinating Council
No
There was no definition of ROW listed in FAC-003-1. The revised definition of ROW in FAC-003-2 is unclear regarding the application of standards and/or historic records as a means of determining ROW width. Is it necessary for a TO to select one method to apply in all cases, or can each span be treated in the manner deemed most appropriate by the TO? “Blowout standard” has not been defined in the document, technical paper, or NERC Glossary and it is not clear what this method is, and exactly how it would be applied. It could not be defended under scrutiny. It is still unclear whether Danger Tree rights are included in this definition. In the NERC Glossary of Terms, Right-of-Way (ROW) is defined as “A corridor of land on which electric lines may be located. The Transmission Owner may own the land in fee, own an easement, or have certain franchise, prescription, or license rights to construct and maintain lines.” Propose keeping this definition. Is encroachment into the MVCD, or (MVCD plus additional distance as defined by the TO)? MVCD, as specified within the body of FAC-003-2 "is a calculated minimum distance stated in feet (meters) to prevent flashover between conductors and vegetation, for various altitudes and operating voltages." MVCD should be “formally” defined in this document, and the NERC Glossary. Can a list/database be established in 2011 that lists the widths for the pre-2007 vegetation management records?
Yes
Yes
Yes
No
There is no percentage language in M7. Is it R7 that is being referred to?

Individual
Andrew Pusztai
American Transmission Company, LLC
Yes
Yes
Yes
Yes
Yes
Individual
Thad Ness
American Electric Power
Yes
No
American Electric Power believes that the phrase "arboricultural activities or horticultural or agricultural activities" was mistakenly introduced into Footnotes 2 and 4, and should be deleted from both footnotes. If the phrase remains in the Standard, it may empower orchard growers, landowners and others to plant trees on the right of way and challenge Transmission Owners' rights to perform maintenance on the presumption that the standard will exempt the TO from violating the outage or encroachment requirements.
No
For increased clarity, AEP offers the following change to the second paragraph of M1, as well as the second paragraph of M2. The original text “If a later confirmation of a Fault by the Transmission Owner shows that a vegetation encroachment within the MVCD has occurred from vegetation within the ROW, this shall be considered the equivalent of a Real-time observation” should be replaced with ““If a later confirmation of a Fault by the Transmission Owner shows that a vegetation encroachment within the MVCD has occurred from vegetation growing into or blowing together with the conductor within the ROW, this shall be considered the equivalent of a Real-time observation. A brief encroachment caused by falling vegetation passing through the MVCD is not considered an encroachment in this requirement”.
Yes
Yes
Individual
William Rees
Baltimore Gas and Electric Co.
Yes
Yes
No
M1 & M2 bullet: “Real-time observation of any MVCD encroachments.” implies that real-time observation of vegetation encroachment ensures reliable operation the Bulk Electric System. The reliability standard objective states; “To improve the reliability of the electric Transmission system by preventing those vegetation related outages that could lead to Cascading.” However, real time observation of current operating conditions provides no assurance that vegetation will not lead to outages since it doesn’t take into consideration the full conductor range of

	motion including maximum sag. BGE recommends removing the language. If an inspector finds vegetation encroaching into the MVCD during a visual inspection he / she should immediately initiate an Immediate Threat Notification. Therefore, this measure has no value.
	Yes
	Yes
	Individual
	Jason Regg
	TVA
	No
	I suggest that "arboricultural activities or horticultural or agricultural activities be removed and changed to installation, removal or digging of vegetation.
	Yes
	Yes
	Yes
	No
	I suggest that footnote 4 be changed by removing the reference to arbicultural, horticultural or agricultural activities.
	Individual
	Michael Schiavone
	Niagara Mohawk Power Corporation (dba National Grid)
	No
	It is still unclear whether Danger Tree rights are included in this definition. Additional question: Can we establish a list/database in 2011 stating the widths for the pre-2007 vegetation management records? There is no definition of ROW listed in FAC-003-1, however in the NERC Glossary of Terms, Right-of-Way (ROW) is defined as “A corridor of land on which electric lines may be located. The Transmission Owner may own the land in fee, own an easement, or have certain franchise, prescription, or license rights to construct and maintain lines.” We propose keeping this definition.
	Yes
	Yes
	Yes
	No
	There is currently no percentage language in M7. If they are referring to R7, then YES it is adequate.
	Individual
	Michael Pakeltis
	CenterPoint Energy
	No
	CenterPoint Energy agrees with the removal of “Active Transmission Line ROW” as a defined term. The change in the NERC Glossary definition for Right-of-Way (ROW) alone, however, does not address all of the remaining interpretation issues within the Standard that still exist. The following issues still require resolution: 1. The “force majeure” was moved from the Applicability section to a footnote, and is no longer an encompassing exception for each Requirement. Therefore, the “force majeure” footnote needs to be applied not only to R1, R2, R6, and R7 but also R4 and R5. For R4, notification to the control center would likely be restricted during a natural disaster. For R5, correction action by the control center may not be possible during a natural disaster. 2. The exception for

	applicability beyond the “Rating and all Rated Electrical Operating Conditions” should be included not only in R1, R2, and R3, but also R5 and R7. For R5 and R7, the encroachment into the MVCD should consider whether the line is operating within its design limits. 3. The use of the term “Fault” in M1 and M2 should be revised to “Sustained Outage”. A “Fault” can be associated with a Momentary Outage or a Sustained Outage. The scope of R1 and R2 is specific to Sustained Outages only. The Periodic Data Submittal is specific to Sustained Outages only as well. If a later confirmation of a “Fault” by the Transmission Owner indicates that a vegetation encroachment into the MVCD was due to a fall-in from inside the ROW, yet caused only a Momentary Outage, the Transmission Owner would be in violation of R1 because M1 considers it to be the equivalent of a Real-time observation. The current scope of the Standard is not intended to include Momentary Outages. If it was, the Periodic Data Submittal would capture this type of outage, which it does not. 4. In the Introduction Section 5 - Background, fall-ins are characterized as “statistically intermittent” and “these types of events are highly unlikely to cause large-scale grid failures”. CenterPoint Energy agrees and therefore recommends that fall-ins be excluded from the Requirements R1, R2, and Periodic Data Submittal of outages. This would negate the need for determining the limits of the ROW, thus simplifying the Standard to a great margin while not sacrificing the emphasis of the Standard. The Draft 5 Background Information states the criteria for developing a results-based reliability standard such that “each requirement should identify a clear and measurable expected outcome.” When the determination of the limits of the ROW goes beyond the interpretation of the legal limits of the ROW, it adds a level of complexity that may be unclear and not deterministically measurable. 5. For R6, CenterPoint Energy believes the detailed rationale and studies used for the determination of the required one year inspection cycle should be included in the Guidelines and Technical Basis. The explanation provided in the Rationale that it is “based upon average growth rates across North America and on common utility practice” are unfounded and arbitrary without a specific reference to a North American study. 6. R7 contains the phrase, “provided they do not put the transmission system at risk of a vegetation encroachment”. CenterPoint Energy recommends this phrase be replaced with the more specific terminology used in the Rationale for R7 and R3: “provided they do not allow encroachment of vegetation into the MVCD.” 7. CenterPoint Energy believes the Periodic Data Submittal should be clarified as to the specific conditions under which Sustained Outages are reported. There is a reference to footnote 2 regarding the exclusion for the “force majeure”; however, the exclusion for lines operating outside their design limits as mentioned in R1, R2, and R3 is missing. CenterPoint Energy believes the wording should be changed to include all applicable exclusions for added clarity and recommends the following wording: “The Transmission Owner will submit a quarterly report to its Regional Entity, or Regional Entity’s designee, identifying all Sustained Outages of applicable transmission lines operating within their Facility Rating and all Rated Electrical Operating Conditions as determined by the Transmission Owner to have been caused by vegetation, except as excluded in footnote 2, which includes as a minimum, the following:” 8. The Guidelines and Technical Basis and the Technical Reference with the Gallet Equation should be combined into one document as a supplement to the Standard to avoid duplication in wording and misinterpretation of context. 9. The Guideline and Technical Basis under Requirement R6 refers to the “percentage of the required ROW inspections completed” and should be revised to match the wording of R6 and the VSL for R6 as the “percentage of applicable transmission line inspections completed.” 10. CenterPoint Energy agrees that the Rationale test boxes should be deleted from the Standard and applicable explanatory text be included within the Guidelines and Technical Basis. 11. The Guidelines and Technical Basis should contain specific examples for determining if a fall-in is considered inside or outside the ROW. 12. CenterPoint Energy recommends modifying the Technical Reference section regarding “Selecting a Maintenance Approach” to delete the sentences beginning with, “If constraints cannot be overcome and if design clearances are sufficient…” and continuing through to, “identified early for rectification.” This example may lead the public to inappropriately ask the utilities for exceptions to allow vegetation beneath the transmission lines, and it also does not address the dynamics of future modifications to the transmission lines (e.g. higher operating temperatures or new conductors) that may necessitate reduced clearances to ground, thus requiring removal of now mature vegetation. The example should not be included in a Standard intended to reduce vegetation risks to the transmission system. It is also in conflict with later statements in the Technical Reference regarding Set Objectives which emphasize maintaining access and clear lines of sight. 13. In general, CenterPoint Energy strongly believes the proposed FAC-003-2 has gone far beyond what was contemplated by the Commission in FERC Order 693. The Commission's determination dealt with the following areas: (1) applicability; (2) inspection cycles; and (3) minimum clearances on National Forest Service lands. For instance, in Paragraph 729, the Commission states, “As proposed in the NOPR, the Commission approves Reliability Standard FAC-003-1 with no proposed modification on the issue of clearances. The Commission reaffirms its interpretation that FAC-003-1 requires sufficient clearances to prevent outages due to vegetation management practices under all applicable conditions….” Rewriting the minimum clearances introduces a new set of confusing definitions, and further burdens the Transmission Owners with new documentation requirements while providing little, if any, benefit when compared to the Clearance 2 concept in the existing Standard. A preferred approach would be to incorporate the following few items into the existing Standard FAC-003-1: (1) the RC versus the RRO; (2) the designation of a specific inspection frequency; (3) the Gallet equation; and (4) the applicability to National Forest Service lands.
	Yes
	Yes

	Yes
	No
	CenterPoint Energy could not find any reference to an example percentage complete calculation for the annual work plan in the Standard for M7, in the Guideline and Technical Basis for M7, nor in the Technical Reference for M7. There was such an example for M6 which was helpful. CenterPoint Energy recommends such an example be included for M7.
	Individual
	Greg Rowland
	Duke Energy
	Yes
	Yes
	We agree with the drafting team's approach, and also agree with reinstating reporting of Category 3 (Fall-ins from outside the ROW) in the Additional Compliance Information section. The SDT responded to comments submitted with the last ballot that: "Zero tolerance for vegetation caused outages is a stated goal of FERC and NERC as it relates to this standard. This policy is part of FAC-003-1 and in concept did not change with the proposed version. The SDT recognizes this concern and has developed gradation taking into account line criticality in VRF's and type of outage not contained in the current version FAC-003-1. Finally, it is also important to note that each and every incident or potential violation is investigated and addressed based on the specific circumstances surrounding the particular event. These investigations should necessarily take into consideration and recognize the utility's individual efforts in responding to an encroachment situation." In addition, we believe that clarifying changes need to be made to footnotes 2 and 4. Clarify footnote 2 by removing the phrase "arboricultural activities or horticultural or agricultural activities" and replacing it with the phrase "installation of". Similarly, clarify footnote 4 by removing the phrase "arboricultural, horticultural or agricultural activities", and replacing it with the phrase "or human activities such as installation, or removal or digging of vegetation."
	Yes
	However, this change was not completely made in paragraph five of the Guideline and Technical Basis document. There the phrase "an investigation" should be replaced by the phrase "a later confirmation"
	Yes
	Yes
	Group
	Platte River Power Authority Substation Maintenance Group
	Deborah Schaneman
	Platte River Power Authority
	No
	We agree that the ROW width in no case exceeds the TO's legal rights but may be less. We do not agree that the revised NERC Glossary definition for Right-of-Way addresses paragraph 734 of FERC Order 693 "that rights-of-way be defined to encompass the required clearance areas instead of the corresponding legal rights, and that the standards should not require clearing the entire right-of-way when the required clearance for an existing line does not take up the entire right-of-way". The engineering or construction standards for establishing the width of the corridor outlined in the definition are in most cases not useful. We will continue to rely on our easements and legal rights with this definition. We believe the Active Transmission Line ROW definition in the previous version more clearly addressed paragraph 734 of FERC Order 693.
	Yes
	Yes
	Yes

	Yes
	Individual
	RoLynda Shumpert
	South Carolina Electric and Gas
	Yes
	Yes
	Yes
	Yes
	Yes
	Group
	Bonneville Power Administration
	Denise Koehn
	BPA, Transmission Reliability Program
	Yes
	Yes
	BPA prefers the stratified levels of violation severity presented in the table for R1 and R2. Foot note #2 on page 8 needs to be clarified with respect to arboricultural activities or horticultural or agricultural activities. What specifically does this phrase refer to? Foot note #4 on page 12 needs to be clarified with respect to arboricultural activities or horticultural or agricultural activities. What specifically does this phrase refer to?
	Yes
	Yes
	The TO procedures / policies and specifications shall demonstrate the TO's ability to manage the system at all rated conditions to maintain reliability. BPA believes that the intent is clear, but the fundamental approach of using the MVCD (table 2) to manage a vegetation program is still problematic. These values are flashover distances and are way too close. This is acknowledged in a footnote to table 2 but no identification of allowable buffers/distances between energized phase conductors at rated temperatures and vegetation is discussed (this is left up the transmission owners). Clarity is needed on this topic. Setting a finite distance limit based on recognized standards, good science and risk avoidance should be done for the industry. BPA previously made this comment during the drafting of the standard. It was not addressed then, nor has it been addressed now.
	Yes
	Group
	Tampa Electric Company
	Luke Diruzza
	Tampa Electric Company
	Yes
	This provides a more flexible definition than previous drafts.
	Yes
	Adds clarity to the VSL from an audit perspective, this is an improved description to the Standard.

Yes
Confirmation allows for the potential of a greater number of “action items” than just investigation.
Yes
Good addition, adds clarity and improves overall understanding of the requirement.
Yes
This allows flexibility for the T.O. to determine the type of “unit” used in calculating the percentage complete.
Group
NextEra Energy
Silvia Parada Mitchell
Corporate Compliance
Yes
Yes
Although NextEra Energy Inc. (NextEra), including Florida Power & Light Company, agrees with the changes referenced for R1 and R2, NextEra is concerned that the exemptions identified in footnote 2 for “…arboricultural activities or horticultural or agricultural activities…,” and similar language in footnote 4, are too broad. For example, this language appears to include an exemption for a landowner, who, during arboricultural activities or horticultural or agricultural activities, causes a vegetation contact with a transmission line (e.g., cutting or lifting a tree into a transmission line). This places the Transmission Owner in the difficult position of a landowner arguing it is exempt from a controllable risk. Thus, the “…arboricultural activities or horticultural or agricultural activities…” references should be removed from footnote 2, and the similar language in footnote 4
Yes
Yes
Yes
Individual
Darryl Curtis
Oncor Electric Delivery Company LLC
Yes
Yes
Yes
Yes
Yes
Individual
Kirit Shah
Ameren
Yes
Yes
This is more in alignment with a results-based reliability standard.

	Yes
	Yes
	This clearly defines “intent”.
	Yes
	This is directed toward R7 rather than M7.
	Individual
	Amy Kupferberg
	Individual
	My Comments do not relate to the question asked, however, I saw no other place to add my comment. I would like to thank NERC for allowing the public to participate in the process of improving the reliability standard FAC-003-1. I became interested in Vegetation Management requirements for Transmission Lines, after Con Edison clear cut the ROW behind my home. I appreciate the importance of safe and reliable electrical service, and recognize how an effective TVMP contributes to this goal. In this whole process, what has dispirited me the most, is the inaccurate information being conveyed about why the clear cutting was necessary and, the causes of the August 14th, 2003 blackout. The narrative goes something like..”a tree falling onto transmission lines caused the black out of 2003.” I find it harmful because it misdirects the focus from the grid’s short fallings, and impedes upgrading the system to improve reliability. I found this same philosophy in the initial pages of CN Utility’s document, UTILITY VEGETATION MANAGEMENT FINAL REPORT MARCH 2004. It suggests that had the trees been adequately maintained, the blackout would have most “likely” not happened. Now I am aware of the qualification of the word “likely,” but the document is heavily weighted on the contribution of tree contact to the blackout. We know that de-regulation and the physical nature of A.C. current had more to do with the causes of the blackout, than tree contact. The timeline shows a range of cascading system failures that created the catastrophic event. The trouble began at 1:58 p.m. when First Energy generating plant in Eastlake, Ohio, shuts down. At 3:06 p.m. a First Energy 345-kV transmission line fails. As a result, at 3:17 p.m voltage dips temporarily on the Ohio portion of the grid. Controllers take no action, but power shifted onto another power line, overloading it and, causing it to sag into a tree and go offline at 3:32 p.m. Mid West ISO and First Energy controllers fail to inform system controllers in nearby states. At 3:41 and 3:46 p.m., two breakers connecting First Energy□s grid with American Electric Power are tripped. 4:05 p.m., a sustained power surge on some Ohio lines signals more trouble building. At 4:09:02 p.m., voltage sags deeply, as Ohio draws 2 GW of power from Michigan. 4:10:34 p.m., many transmission lines trip out, beginning in Michigan and then in Ohio, blocking the eastward flow of power. Generators go down, creating a huge power deficit, in seconds, power surges out of the East, tripping East coast generators, and the rest is history. The U.S.-Canada Power System Outage Task Force: Final Report on Implementation of Recommendations, September 2006, states that “Inadequate reactive supply was a factor in most of the events.” and “the assumed contribution of dynamic reactive output of system generators was greater than the generators actually produced, resulting in more significant voltage problems.” The backup generators were not adequate to handle the amperage load or voltage needed. A lack of coordination of System Protection Programs(relays tripping), inadequate communication between Utilities/TOs, and lack of "training of operating personnel in dealing with severe system disturbances" are all the causes for the blackout. With respect to vegetation management, the findings from The U.S.-Canada Power System Outage Task Force: Final Report on Implementation of Recommendations, September 2006, clearly did not intend for transmission owners to develop a one-size-fits-all standard. The Energy Policy Act of 2005, initiated NERC to draft and adopt the standard FAC-003-1. When I read through the standard, it all seems very reasonable. I can understand the stiff penalties for noncompliance because it seems, like an easy fix, compared to the necessary, major changes in infrastructure. The principles further outlined in ANSI A300 VII, and “Best Practices” IVM, seem very reasonable too. There is mention of the environment, property owners, even proper pruning techniques. The wire zone clearance of 10 feet and, allowing low growing compatible vegetation in the boarder zone, seems to retain more vegetation, than remove. However, in practice, the TOs are simply clear cutting the ROW, with no regard for the enviroment, the trees that they are cutting, or the abutting properties. It took Con Edison 2 1/2 half days to clear 450 tress form behind our home. We are now forced to see and hear 93,000 cars a day from the Sprain Parkway. Following the clearing, our real estate broker dropped the asking price by 30%. The house remains empty and unsold. Apparently, no one is interested in spending 32,000K a year in property taxes to look at transmission towers/lines and live on a highway. This has been devastating to our family, and thousands of others in Westchester County. They removed a buffer of trees that were 150 feet away from wires and towers, on a downward slope. These trees would have never made contact with conductors. Con Edison’s defense is that they did it because it was in their right to. Moreover, they use the NERC fine structure to defend their behavior. I went through the Notice of Penalties that NERC has issued from 6/2/08-2/01/11. Out of 646 Notice of Penalties, 1700 violations were sited, 36 out of 1700 penalties were issued for violations to the FAC- 003-1 standard. Some NOPs had multiple violations-18 R1 violations were cited and 29 penalties were issued for R2 violations. Out of the 29 R2 penalties, 20 involved tree contact. Some outages were caused by sagging wires, some were caused by arcing electricity looking for a ground fault, but none were caused by a tree falling onto the transmissions wires. The numbers should put into perspective how immaterial the problem of tree contact really is. Think about it... 20 out of

	1700 involved tree contact, and none of then resulted in a sustained outage. That means 1680 violations were issued due to other system failures. To use these penalties as an excuse is a complete over exaggeration. What is missing from the standard and the fine structure, are penalties for over cutting and violations to other stipulations, such as proper communication, training, and aftercare of the affected areas. The problems that have arisen from current TVMP activities being executed nationally on our ROWs, is not a public perception problem. Rather, TOs are not complying with standards that are meant protect the environment and they are not respecting the property rights of the neighboring homeowners. I appreciate the opportunity to share my views, and would take any opportunity to further participate in protecting the rights of property owners, and the environment, while working to secure safe and reliable electrical service. Most respectfully, Amy M Kupferberg Utility Whisperer
	Individual
	George Czerniewski
	Consolidated Edison Company of New York, Inc. - Transmission Line Maintenance
	Yes
	Yes
	Yes
	Yes
	Yes
	The added language for the annual work plan percentage complete calculation is shown in R7 not M7 as stated in the question. In the Guideline and Technical Basis Section for Requirement R6, there is a sample calculation shown for the amount of lines the TO failed to inspect. An example should also be included for Requirement R7 since there is some confusion regarding how modifications to the work plan affect the calculation. In the Lower VSL column for R7, it states that the TO failed to complete up to 5% of its annual vegetation work plan (including modifications if any). If a TO operates 100 lines and submits a justified modification that affects 10 miles of lines, the total number of units in the final amended plan is 90 miles. When you read the VSL, it is somewhat confusing since the information in parenthesis says that the calculation 'includes' the modifications. Should it state 'excludes modifications if any' or the VSLs can simply be re-written to state that ..The TO failed to complete up to x% of the final amended plan.' Also, the VSLs in R6 and R7 should be consistent with each other: R6 says '...TO failed to inspect 5% or less.....' and R7 says '...TO failed to complete up to 5%....' They both should use the same verbiage in each VSL whether it is 'x% or less' or 'up to and including x%.'
	Individual
	andres lopez
	USACE
	Yes
	Yes
	Yes
	No
	Yes
	Individual

	CJ Ingersoll
	CECD
	Yes
	Yes
	No
	Suggested Modification to the Measure - "If an after-the-fact analysis of a Fault by the Transmission Owner determines that a vegetation encroachment within the MVCD has occurred from vegetation within the ROW, this shall be considered the equivalent of observing an encroachment in Real-Time." CECD would also like to comment on the Evidence Retention section, as it relates to Measures. The Evidence Retention section states that the Transmission Owner retains data or evidence to show compliance with Requirement R1, R2, R3, R5, and R7, Measures M1, M2, M3, M5, M6 and M7 for three calendar years...." Measures provide examples of evidence that a Transmission Owner can produce to show compliance with the associated Requirement but are not separate Requirements to be managed so reference to Measures should be deleted from the Evidence Retention section of the standard.
	Yes
	Because Requirement 5 and 7 use the phrase annual work plan, and there is not a Requirement to develop a work plan, this Requirement should include a relationship between the document that is developed for maintenance strategies and the annual work plan.
	Yes
	Individual
	Edward J Davis
	Entergy Services, Inc
	Yes
	The revised Glossary definition of ROW helps to clarify the intent of what is expected and/or considered ROW stipulations. This is a beneficial addition/clarification.
	Yes
	Yes
	Yes
	Yes
	The actual clarifying language seems to have been added to R7 instead of M7 (as stated above). The clarifying language provides benefit as added to R7, and should remain in R7. Additionally, we feel that, in an effort to promote consistency with the other 6 Requirements, the term "on applicable Transmission lines" should be added at the end of the first sentence of R7, as it is listed in all other R's. The first sentence of R7 currently reads: "Each Transmission Owner shall complete 100% of its annual vegetation work plan to ensure no vegetation encroachments occur within the MVCD". We feel the first sentence should read "Each Transmission Owner shall complete 100% of its annual vegetation work plan to ensure no vegetation encroachments occur within the MVCD on applicable transmission lines".
	Individual
	David Burke
	Orange and Rockland Utilities, Inc.
	Yes
	Yes
	Yes

	Yes
	Yes
	The added language for the annual work plan percentage complete calculation is shown in R7 not M7 as stated in the question. In the Guideline and Technical Basis Section for Requirement R6, there is a sample calculation shown for the amount of lines the TO failed to inspect. An example should also be included for Requirement R7 since there is some confusion regarding how modifications to the work plan affect the calculation. In the Lower VSL column for R7, it states that the TO failed to complete up to 5% of its annual vegetation work plan (including modifications if any). If a TO operates 100 lines and submits a justified modification that affects 10 miles of lines, the total number of units in the final amended plan is 90 miles. When you read the VSL, it is somewhat confusing since the information in parenthesis says that the calculation 'includes' the modifications. Should it state 'excludes modifications if any' or the VSLs can simply be re-written to state that ..The TO failed to complete up to x% of the final amended plan.' Also, the VSLs in R6 and R7 should be consistent with each other: R6 says '...TO failed to inspect 5% or less.....' and R7 says '...TO failed to complete up to 5%....' They both should use the same verbiage in each VSL whether it is 'x% or less' or 'up to and including x%.'
	Group
	NERC Staff
	Doug Keegan
	NERC
	No
	NERC supports a revised definition and prefers the definition in Draft 5 over the Active Transmission Line ROW definition used in Draft 4. NERC believes the use of the term “pre-2007 vegetation maintenance records” in the proposed definition is ambiguous and will likely be interpreted differently throughout the industry. Therefore, NERC supports this change subject to removing the aforementioned term.
	No
	The sentence was added to the rationale but the phrase “in order of increasing severity” is not in the requirement or their associated VSLs. NERC staff does not support the language in the rationale box which differentiates the VSL based on skill level of maintenance personnel rather than the impact to reliability of the encroachment. The VSL should be based on whether or not the owner managed the vegetation to prevent encroachment and therefore be binary. See additional comments submitted separately regarding combining R1 and R2.
	No
	Concur with restating as mentioned above. Other issues remain regarding data reports indicating no sustained outages or real-time observations. These measures appear to indicate that if the outages or real-time observations are not documented then an encroachment didn’t occur. What will compel an entity to document these occurrences? In addition, the last two paragraphs of the Measure are not really measures. They would be better served as part of the Requirement.
	No
	Adding the term “maintenance strategies” is not helpful in the requirement. NERC staff recommends the following: “Each Transmission Owner shall have a documented vegetation management plan that includes maintenance strategies, procedures, processes, and specifications it uses to prevent the encroachment of vegetation into the MVCD of its applicable lines that include(s) the following:”
	Yes
	Actually, R7 contains the clarifying language. It should be noted that although R7 indicates the TO shall complete 100% of the VM work plan, there is no requirement in this draft that a plan is actually developed.
	Individual
	Saurabh Saksena
	National Grid
	No
	The revised ROW definition emphasizes the ROW width needed to operate the transmission line(s). It is National Grid’s interpretation that the width established when the line was constructed is the width to be maintained. This width is documented in engineering drawings, per-2007 vegetation records or blow-out standards. This definition does not imply that danger tree rights beyond the constructed and maintained width are incorporated in the definition; therefore fallins - from outside the ROW but within within an area with danger tree rights would not be considered fallin-ins from within the ROW. National Grid would like the SDT to comment on this interpretation in its response to these comments.

Yes
Yes
Yes
No
There is currently no percentage language in M7. If they are referring to R7, then YES it is adequate.
Group
Pepco Holdings Inc and Affiliates
David Thorne
Pepco Holdings Inc
Yes
Yes
Yes
Yes
Yes
Group
FirstEnergy
Sam Ciccone
FirstEnergy Corp.
No
Although for the most part we agree with the changes to the definition of ROW, we suggest the following changes. 1. The last sentence of the definition states "The ROW width in no case exceeds the Transmission Owner's legal rights but may be less based on the aforementioned criteria." We do not agree with the phrase "in no case exceeds the Transmission Owner's legal rights" because there could be instances where special permission has been granted by landowners to the TO. We suggest revising this statement to "The ROW width may be less than the Transmission Owner’s granted rights based on the aforementioned criteria." 2. Regarding the phrase "blowout standard" used in the definition, we are assuming this is in reference to the company specific calculations for sag and sway on not on any one specific industry standard. We suggest clarification such as "Transmission Owner's specific blowout or sag and sway analysis in effect when the line was built".
No
For the Requirement R1 and R2 VSLs, we suggest that the proposed Moderate (fall-ins) and High (blowing together) VSL be interchanged. We believe that fall-ins are more severe encroachments than blowing together and the categories listed in the compliance section support this point. Category 1 (grow-ins) is most severe, followed by Category 2 & 3 (fall-ins) and Category 4 (blowing together).
Yes
Yes
Yes
Although we generally agree with Requirements R7 and its measure M7, we suggest adding clarifying wording to bullet 4 which states "Crew or contractor availability/ Mutual assistance agreements". In addition to availability, contractor performance may be another issue that requires modification to the work plan. We suggest adding

	another bullet that reads "Crew or contractor performance". The rationale behind this addition is to address poor safety, productivity and/or quality issues with a crew or contractor assigned to perform vegetation management. FirstEnergy provides the following additional comments and suggestions not related to the specific questions asked in this posting: 1. Requirement R5 – We appreciate this requirement which recognizes that the TO may face situations in which it is constrained from performing its vegetation management and are permitted to seek alternative methods. However, there may be instances where the TO has exhausted all course of action to perform vegetation and must utilize other means to prevent vegetation encroachment into the MVCD. Therefore, in these instances, "continued vegetation management" as stated in the requirement is not possible, but other methods such as line deratings and deenergizing of lines may have to be used. We ask that the phrase "to ensure continued vegetation management to prevent encroachments" be changed to read “to ensure continued reliability of the BES”. 2. Compliance Section – Category 3 – We suggest removing this category from the standard. Since fall-ins from outside the ROW are not considered a violation of this standard per Requirements R1 and R2, the entity should not have to report these fall-ins. 3. Objectives – We do not believe that is necessary for the Objectives statement to include the "defense-in-depth" concept which is actually an overarching goal of results-based standards in general and not specific to FAC-003-2. We suggest removing this phrase. 4. Background Section 5 – Similar to our comment above regarding defense-in-depth in the objectives statement, this is an overarching goal of results based standard and not specific to FAC-003-2. Therefore, we suggest removing the explanation of defense-in-depth from the background section. 5. Vegetation Inspection Definition – We suggest replacing the word "hazard" with "risk". 6. Requirement R4 – We do not agree with the phrase "without any intentional time delay" and suggest it be removed. This phrase is not measurable. Also, other drafting teams have attempted to incorporate this statement but industry comments have persuaded them to remove it; for example, the Reliability Coordination drafting team (Project 2006-06) initially proposed the same phrase but later removed it in their development of the COM/IRO standards. At the very least standards development should be consistent throughout the NERC standards drafting teams. We suggest the following as wording for Requirement R7: "Each Transmission Owner shall ensure the control center holding switching authority for the applicable transmission line is promptly notified when the Transmission Owner has confirmed the existence of a vegetation condition that can potentially cause a Fault."
	Individual
	Steve Rueckert
	Western Electricity Coordinating Council
	Yes
	Yes
	Yes
	Yes
	Yes
	We support the clarifying languae in M7 However, since there is no generic "Any other Comments" section associated with this on-line comment form, we raise a question here. On December 24, 2008, NERC issued an e-mail to all Transmission Owners in which it referenced its December 17, 2008 Public Notice – NERC Compliance Process #2008- 001, Vegetation-related Transmission Outage Reporting. The notice stated that: "Due to the potential severity of transmission outages caused by vegetation associated with Standard FAC-003-1, NERC is encouraging each Transmission Owner to self-report all Category 1 and Category 2 transmission outages related to vegetation to the Regional Entity within 48 hours utilizing the 48-hour vegetation reporting notice form provided by your appropriate Regional Entity." We do not see any reference to a 48-hour reporting notice in lthis version of the standard. Is this still a requirement? The only reference to reporting is in the Additional Compliance Information section and references quarterly reporting only.
	Group
	Dominion Electric Market Policy
	Mike Garton
	Dominion Resources Services, Inc.
	Yes
	Yes

	Yes
	Yes
	No
	The red-line revision does not indicated changes to M7; therefore, Dominion is unable to evaluate the clarifying language identified in this question. If the SDT meant to reference R7, we agree that the clarification is adequate.
	Individual
	Jody Nelson
	Georgia Transmission Corp.
	Yes
	Yes
	Yes
	Yes
	Yes
	Group
	Southern Company Transmission
	JT Wood
	Southern Company Services
	Yes
	While we prefer the Active ROW definition, we are willing to accept the newly proposed definition.
	Yes
	No
	We would recommend the middle paragraph of M1 and M2 be revised as follows: “If a later confirmation of a Fault by the TO shows that vegetation encroachment within the MVCD has occurred from vegetation growing into or blowing into the conductor within the ROW, this shall be considered the equivalent of a Real-time observation. Brief encroachments caused by a falling tree going through the MVCD is not considered an encroachment.”
	Yes
	Yes
	Individual
	T. Wiley
	Northern Indiana Public Service Company
	Yes
	No
	While there are some enhancements to the organization and content of the standard such as the addition of the Guidelines and Technical Basis section, clarification of what constitutes evidence of compliance, and tailoring of VSL severity levels for the requirements based on the risk each poses to the likelihood of contributing to a cascade.

	too many elements present in FAC-003-1 and which are vital to preventing vegetation caused outages and maximizing system reliability, have been eliminated from FAC-003-2. Specifically, the elimination of concrete, declared and audited clearance standards between vegetation and conductors (the existing Clearance 1 and Clearance 2 (R1.2)) Requirements) in the revised standard is a major defect that will decrease system reliability. It has been indispensable for NIPSCO when communicating with stake holders (governments, interest groups, land owners, the public, etc.) to point to these clearance standards to give credibility and support to the kind of tree removal and trimming that is necessary to achieve the stated objective of zero preventable tree caused outages. Without these declared clearance standards in the NERC standard, utility vegetation managers will constantly be challenged by stake holders to show them that such work is required rather than an elective choice on the utility's part. One of the key lessons learned from the 2003 blackout and First Energy's overgrown ROW tree problem was that individual land owners, local governments, and interest groups will exert pressure on the utility to only do the minimum amount of vegetation management. Without external and enforceable Vegetation Clearance Standards and by returning to a pre-2003 regime where the extent of vegetation clearing is left to the individual discretion and pressures at each utility, there is no doubt that tree clearance conditions will deteriorate over time and put system reliability at greater risk of vegetation contact.
	Yes
	No
	Yes

NERC
NORTH AMERICAN ELECTRIC RELIABILITY CORPORATION

FAC-003-2 Vegetation Management Draft 5
NERC Staff Comments in Addition To Those Submitted On Comment Form
2.28.11

In addition to the comments NERC submitted to the five questions on the official comment form, NERC staff has numerous other comments to make with regard to this Draft 5. Before that, NERC staff first wants to acknowledge the significant effort and talent that the industry brought to attempt to improve upon Reliability Standard FAC-003-1 – Vegetation Management. This Draft 5 of FAC-003-2 – Vegetation Management entailed significant industry work towards understanding the issue, compromising on proposals and attempting to reach consensus utilizing the NERC Standards Development Process. While NERC staff believes this draft represents some improvements to the existing standard, it does not believe the draft in its totality represents an improvement to the existing standard. FERC Order 693 approved the existing Vegetation Management Standard and it provided a number of directives for NERC with regard to further developing the Standard in order to improve it. Such directives and NERC comments regarding how the directives were addressed included:

- FERC Directive - Develop compliance audit procedures, using relevant industry experts, which would identify appropriate inspection cycles based on local factors. The Commission is dissuaded from requiring the ERO to create a backstop inspection cycle at this time.

  NERC Comment – Compliance audit procedures are outside the scope of the SDT and this Draft 5. Although not required by the Commission, the SDT added an annual inspection cycle to the Standard, with a maximum of 18 months between inspections. NERC believes this requirement represents an improvement to the existing Standard and does not believe it is overly burdensome on utilities.

- FERC Directive - Remove the general limitation on lines 200kV and above to include lines that have an impact on reliability.
  - Do not reduce facilities included
  - Develop an acceptable definition for the applicability of this Reliability Standard that covers facilities that impact reliability while not unreasonably increasing the burden on transmission owners.
  - Evaluate the suggestions proposed by LPPC, APPA and Avista that regional entities should determine which facilities this standard applies to

  NERC Comment – NERC believes Draft 5 partially addresses this issue by increasing applicable facilities to IROL lines under 200kV. NERC staff is also concerned about

  - The possibility that this very addition could limit a regional entity's desire to include additional lines.

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- The exclusion of facilities inside the fenced area of switching stations, stations and substations. These excluded areas still pose a vegetation related outage risk and the rationale for excluding them is not compelling enough.
- The separation of IROL (any voltage level) and non-IROL (200 kV and above) Transmission Lines into separate requirements with different VRFs. NERC believes all Transmission Lines subject to this standard should be under the same requirement and associated VRFs. IROL lines are relatively few and do not warrant their own requirement. By having lower VRFs for non-IROL lines, this version of the standard is weaker than the existing standard. These two requirements should be a single requirement with high VRFs

- FERC Directive - Develop a Reliability Standard that defines the minimum clearance needed as an improvement to IEEE 516 which FERC does not believe is appropriately used for purposes of reliability and/or safety.

  NERC Comment – Draft 5 makes a change from IEEE 516 and utilizes Gallet equations for industry clearances. While NERC believes these equations are technically accurate, NERC is concerned about the usefulness of the clearances determined under this methodology as put forth in this draft. NERC is not aware of any utility which would maintain clearances as specified in this draft as it has no built in safety factor. NERC is further concerned that utilities could be mandated by courts of law to reduce existing maintained clearances to values much closer to those determined by the methodology in this draft.

- FERC Directive - Define rights-of-way to encompass the required clearance areas instead of the corresponding legal rights, and the standards should not require clearing the entire right-of-way when the required clearance for an existing line does not take up the entire right-of-way.

  NERC Comment – NERC staff believes this directive was met and is addressed in question 1 of the comment form.

- FERC Directive – NERC should address the proposed modifications through its Reliability Standards development process.

  NERC Comment – NERC staff believes this directive was met in preparing this draft standard.

- FERC Directive - Collect outage data for transmission outages, analyze it, and use the results of this analysis and information in the development of the Reliability Standard.

  NERC Comment – NERC staff believes more work needs to be done in this area. NERC staff believes the drafting team should consider modifying the Periodic Data Submittal to include if outages occur on Federal land.

Other Draft 5 Issues

- Removal of a formal transmission vegetation management program, of Clearance 1 and of a documented vegetation management plan.

  NERC Comment – NERC does not support the removal of these items. NERC does not believe these changes represent an improvement to the standard and does not believe this existing requirement is overly burdensome to utilities. NERC does not understand why industry would not be willing to be held accountable to their vegetation management plans. NERC is concerned that the removal of these items could make it difficult for utilities to obtain permissions needed to maintain clearances between inspection cycles which are prudent for reliability and safety due to intervener or landowners exercising their rights and then pointing to this new standard as a the basis for smaller clearances. . Requirement 3 in this draft needs to include a documented plan and to clearly identify the specifics to be included in the plan and provide clarity of expectations. The SDT may not support such specifics as not being consistent with results-based standards development but NERC staff believes otherwise.

- Objectives**:** A qualifier in the standard Objective that it should apply to preventing the risk of vegetation related outages *that could lead to cascading outages.*

  NERC Comment – This qualifier limits the purpose of the standard, which should be to prevent vegetation related outages, not cascading outages. The more outages there are, the less the overall system reliability. An outage does not necessarily have to lead to a cascading outage to be significant and represent a reasonable risk to the BES. References to cascading outages should be removed.

- Background**:** This section excludes vegetations fall-ins and blow-ins from outside the ROW on the basis that they are not preventable.

  NERC Comment – Many fall-ins and blow-ins from outside the ROW are preventable. Trees outside the ROW must be managed adequately to prevent outages on the BES. The work to remove and/or prune trees outside the ROW may be more difficult and costly than such work inside the ROW, but that is not sufficient reason to exclude this work. In addition, utilities wishing to perform such work might be prevented from doing so by regulatory bodies based upon the lack of a specific requirement in this standard.

- Requirement 1 & 2: These requirements discuss preventing encroachments into the MVCD of an applicable line that is operating within its Rating.

  NERC Comments –NERC staff would like confirmation that “Rating” is intended to include all published ratings issued by the facility owner, such as Normal, Emergency, etc.

- Requirement 4: R4 states that "Each Transmission Owner, without any intentional time delay, shall notify…"

  NERC Comments: The previous version of the standard included a time limit of 15 minutes once communications became available. This should be reinstated.

- Requirement 7: R7 sets the requirement for each Transmission Owner to complete 100 percent of its annual vegetation work plan.

  NERC Comments – NERC is concerned that the draft doesn't have a requirement for a Transmission Owner to have a documented annual plan making Requirement 7 unenforceable. In addition, Requirement 7 has a number of other qualifiers that would seem to allow manipulation of the annual plan to ensure compliance.

- Draft 5 document quality

  NERC Comments – this draft has some typographical errors which need to be fixed. For example, on page 28, reference to use of Table 5 versus Table 7 based on knowledge of maximum transient over-voltage factor is reversed. These edits could probably be handled through a recirculation ballet.

- Previously raised NERC issues

  NERC Comments – NERC staff posted several comments on the Draft 4 version of this standard in July 2010. NERC believes most of the concerns it raised in those comments are not addressed in Draft 5 and continue to be a concern for NERC.
- General compliance and audit issues

  NERC Comments –

  - The whole "sustained outage" concept in R1 (for fall ins and blow ins) is unworkable from an enforcement perspective.
  - The difference between a violation and a non-violation in Draft 5 is whether the registered entity was fortunate with regard to an encroachment. This part should be rewritten to say that any tree contact is a violation. VRFs and VSLs could then be used to address whether the violation was minor or serious.
  - There could be a lot of litigation over whether "circumstances" were really "beyond the control" of the TO. NERC had previously objected to the implementation of a force majeure clause in the standard. If an entity failed to carry out its annual plan, that should be treated as a violation, and any excuses for failing to do so or for changing the plan mid-year all go to whether the penalty should be $0 or substantial.
  - For the evidence retention period, the entity really should retain evidence of compliance until the next compliance audit. Since some TOs may be on a 6 year audit schedule, the 3 year retention period is not sufficient.