

Waiver FAQ's

1. **What is the waiver process for requirements in NPR 7120.5D?**

Answer

Requests for waivers to NPR 7120.5D requirements are documented and submitted for approval using the NPR 7120.5D Waiver form. (The form is available electronically on the POLARIS website at <https://polaris.nasa.gov>.) Prior to the KDP I for programs (KDP II for single-project programs) and KDP C for projects, these requests may be documented and attached to a single waiver to assure proper routing and control. Waivers impacting formulation or requiring long lead time may be submitted individually early in formulation. Following KDP I for programs (KDP II for single-project programs) and KDP C for projects waivers must be submitted individually to the appropriate authority. (See 3.6.2)

The NPR 7120.5D waiver approval authorities are show in the following table

Legend	R	Recommends	A	Approves	I	Informed	
	Project Manager	Program Manager	Center Director	MDAA	Chief Engineer	NASA AA	Approval Authority for Waivers with Dissent
Programs (except tightly coupled programs)		R	A	A	A	I	NASA AA
Programs (tightly coupled programs)		R		A	A	I	NASA AA
Category 1 Project	R	A	A	A	A	I	NASA AA
Category 2 and 3 Projects	R	A	A	A	A	I	NASA AA
Reimbursable Space Flight Projects	R		A	A*	A	I	NASA AA

* As Applicable

Approval Authorities for Waiver of NPR 7120.5D requirements

Note: The waiver form and the above table are only for waiver of NPR7120.5D requirements. See below for the process to be applied to all other requirements.

2. What is the waiver process for requirements other than those associated with NPR 7120.5D?

Answer

The evaluation and disposition of all requirements change requests and waivers other than those associated with NPR 7120.5D (including waivers of Agency-level requirements and standards) must comply with the following (See 3.6.3):

The organizations and the organizational levels that agreed to the establishment of a requirement must agree to the change or waiver of that requirement, unless this has been formally delegated elsewhere.

The next higher level of Programmatic Authority and Technical Authority must be informed in a timely manner of change requests or waivers.

The reasoning behind these principles includes:

The organization that established the requirement has the best understanding of the reason and rationale behind the requirement and is in the best position to assess whether a requested requirement change or waiver is appropriate and properly justified. This also provides important feedback to the requirement owner that can be used to assess whether the requirement needs to be reassessed.

Informing the next higher level of the requested change or waiver ensures that if a higher organizational level is relying on the requirement for some other purpose they are informed and can engage in the discussion if appropriate.

3. Why do the requirement change and waiver principles of NPR 7120.5D require the notification of the next higher level?

Answer

The rationale for this notification is that others at a higher level may be counting on or have used the requirement being changed or waived and this fact is not known by those changing or waiving the requirement. An example might be the use of the requirement being changed in some higher level system or risk analysis.

4. Where does a program or project submit a waiver for a requirement that is the responsibility of the Technical Authority?

Answer

The Technical Authority designated for a specific program or project is the single point of contact for the Technical Authority process at that level. This principle defines the level of Technical Authority at which the request will be submitted and the level at which the disposition will be returned. Therefore, the program or project would submit the waiver of a Technical Authority requirement to the lead Technical Authority at the level at which the waiver is being sought.

For example, a project would submit a waiver that is the responsibility of the Engineering Technical Authority to the Project Chief Engineer.

See the question below to determine which Technical Authority has the lead for a given requirement.

5. Since requirements in some specifications and standards may be applicable to more than one Technical Authority, how does a program or project know who is the lead for processing a request for an exception, change, or waiver?

Answer

The Programmatic Authority (program or project) would submit a requirement waiver, exception, or change to the lead Technical Authority for the specific requirement at the level at which the waiver is being sought.

Explanation

The Technical Authority level at which the request is submitted (and the level at which the disposition will be returned) is governed by the principle that a Technical Authority designated for a specific program, project, or sub-system is the single point of contact for formal Technical Authority action for that specific Technical Authority at that level.

The Lead Technical Authority for the requirement who leads the Technical Authority dispositioning process can be determined by the following:

- A database is being developed to define the lead Technical Authority and the role of the other Technical Authorities in the dispositioning process. Until the database is available, the guidance below should be followed.
- If the requirement lead is not available in the TBD database, the Technical Authority with responsible for the document in which the requirement appears is the default Lead Authority. It is the responsibility of the default Lead Technical Authority to work with the other Technical Authorities to identify what mandatory Technical Authority concurrences are required and which Authority should be the lead for the requirement in the future.

6. Who can disposition a change or waiver request of a requirement established by an Agency or Center level Technical Authority?

Answer

The lead Technical Authority for the requirement at the level at which the requirement relief is being sought oversees the processing of the change or waiver of a Technical Authority established requirement. The lead Technical Authority's responsibility includes ensuring that the Technical Authority direction provided to the Programmatic Authority (program/project management) represents the view of the Technical Authority community.

Prior to providing the Technical Authority disposition to the Programmatic Authority that requested the requirement change or waiver, the Technical Authority designated as the lead for the requirement must:

- Ensure that the issue is acted on by the appropriate level of their Technical Authority.
- Coordinate with the other involved Technical Authorities to ensure that they have their respective community positions.
- Confirm that any differences between or within a Technical Authority or among Technical Authorities are resolved (by the Dissenting Opinion process if necessary).
- Confirm that the required mandatory concurrences have been obtained, and all required Technical Authority notifications have been made.

Rationale

1. Technical Authority direction related to Technical Authority established requirements is binding on the Programmatic Authority. Upon receipt of such direction, the Programmatic Authority has three choices, accept the Technical Authority disposition, request a review by a higher level of Technical Authority and Programmatic Authority through the Dissenting Opinion process of NPR 7120.5D , or cancel the request for requirement relief.

For such binding direction the Technical Authorities are obligated to resolve any internal differences before providing the direction to the Programmatic Authority.

2. Responsibility must reside with an individual. The principle is based on the belief that if you can't identify the one person responsible, then no one is really responsible.
3. For Engineering Technical Authority NPR 7120.5D states

In executing this role, the PCE works with the Center Engineering Director(s) (or designees), as necessary, to ensure the engineering technical authority direction provided to the program/project reflects the view of the Center engineering community (or NASA engineering community, where appropriate). When there are disagreements between the PCE and the engineering community, resolution is sought at the next higher level of the Center Engineering Technical Authority in accordance with Section 3.3.

This concept is applicable to the other Technical Authorities. If there were dissent between two Technical Authorities, the joint resolution process would rise up both paths simultaneously until the issue is resolved...

7. What is some of the important background needed by an individual with delegated dispositioning authority for Technical Authority responsible requirements?

Answer

An individual with authority to disposition a change, waiver or exception to a Technical Authority established requirement must have traceable Technical Authority for this responsibility. The normal provisions for Technical Authority apply. This includes a formal delegation, independence from the program or project, etc. Important background includes understanding of:

- The waiver principles in NPR 7120.5D and NPR 8715.3
- The concept of Technical Authority and the responsibilities of those with delegated TA
- The limits of the delegated dispositioning authority
- Be knowledgeable of the requirement Dissenting Opinion process in NPR 7120.5D

8. How is the “appropriate level” of Technical Authority for the disposition of a Programmatic request for a change or waiver to a Technical Authority requirement determined?

Answer

Individuals with delegated Technical Authority responsibility at the program and project level are responsible for ensuring that changes to, and waivers of, Technical Authority requirements are submitted to, and acted upon by, the appropriate level of their respective Technical Authority.

“Appropriate” is determined by the level of Technical Authority defined by the higher of the following”:

- 1. The level at which a Chief Technical Authority has reserved dispositioning authority:**

- For the Lead Technical Authority this is the authority for dispositioning the change to or waiver of a requirement.
- For a Technical Authority with a mandatory concurrence this would be the authority to concur in the requirement change or waiver.

Examples might include:

The Chief SMA (the lead Technical Authority) reserving at their level the authority for dispositioning a change to or waiver of a Human Rating requirement.

The Chief Engineer reserving at their level the Engineering Technical Authority's mandatory concurrence on some particular engineering related safety factor contained within a requirement for which SMA has the requirement lead.

Note: In both of the above cases the authority to approve the requirement change or waiver was reserved at the Agency level. Therefore, for these cases the applicable MDAA (or higher) would have to accept the residual risk for the change or waiver. This is in accordance with the high-level technical authority delegation principles which include:

The Technical Authority approval of a Programmatic Authority request for a change to or waiver of a requirement is contingent on a Programmatic Authority accepting the residual risk inherent in the change or waiver. Similarly, the Center Director would have to accept the residual risk for a waiver of a Center institutional requirement.

The Programmatic Authority accepting the risk should be at or above the level of the Technical Authority approving the change or waiver.

Rationale

- The Programmatic Authority has the overall responsibility for the success of a program or project in accordance with governing requirements. Accepting residual risk is therefore also the responsibility of the Programmatic Authority.
- As a matter of equity it is appropriate for the Programmatic Authority at or above the level of the Technical Authority agreeing to a Programmatic Authority request for an exception, change or waiver to a requirement to accept the residual resulting from acceptance of the request.

2. The level at which the parent requirement was established unless formally delegated elsewhere

Requirements applicable to a program or project can originate at the Agency level, Center level, or can be derived at some level of Programmatic Authority and invoked on specific levels or parts of a program or project.

For example, a program could develop and invoke a derived requirement on a project based on a requirement that originated with Agency level Programmatic or Technical requirement, with a Center level requirement, or a derived requirement that emerged from program level trade-studies. This process could repeat itself at lower levels (e.g. element, sub-system level, etc.)

When a request for requirement change or waiver is processed, one of the first steps should be to understand what organization and level established the requirement. The level that established the requirement is defined as the level that established the originating or parent requirement.

For a Technical Authority requirement (Agency or Center) the level that established the requirement is the appropriate level at which disposition approval or mandatory concurrence will be granted unless this authority has been formally delegated elsewhere. In that case, the level of the delegation defines the appropriate level.

Note: “granted” as used above means the level that must agree with the technical justification for the requested change or waiver. The request for requirement relief will be submitted to and the disposition of the request will be returned to the Programmatic Authority by the lead Technical Authority at the level the waiver or change request originated.

This FAQ is illustrated by the following example and generalized flow chart.

Example

A Project Manager (Programmatic Authority) requests relief from a requirement established by an Agency Technical Authority who has formally delegated waiver and change authority to the NESAC.

The change or waiver request would be submitted to the lead project level Technical Authority (See the discussion above related to the lead Technical Authority.). The Technical Authority would, with the support of the local Center Engineering organization, obtain the NESAC position on the disposition. The positions of the other Technical Authorities with mandatory concurrences would be obtained. Any differences would be reconciled and the resulting

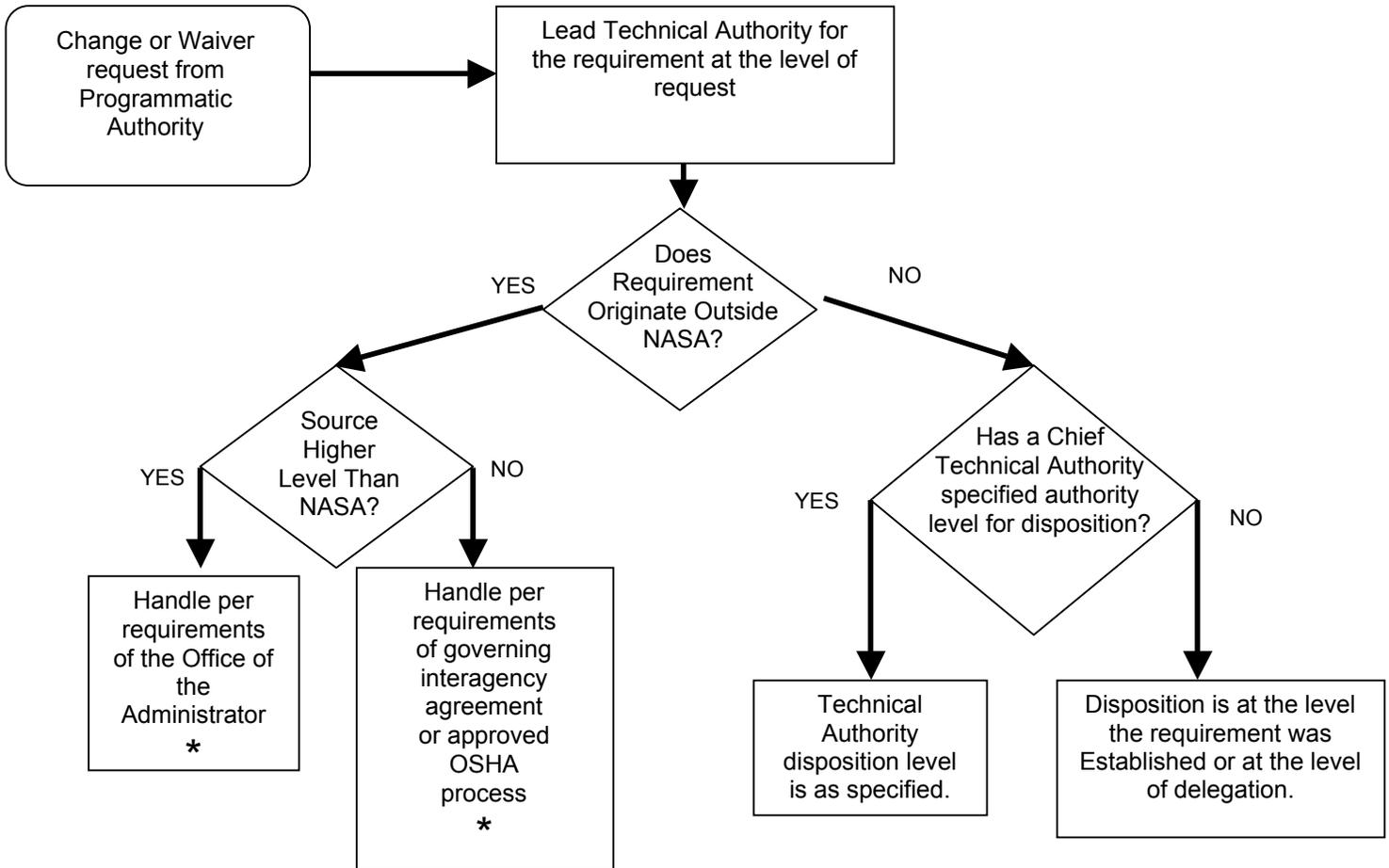
Engineering Community disposition would be returned to the Programmatic Authority by the Lead Technical Authority at the project level.

Rationale

The project level Technical Authority is the single point of contact for Technical Authority matters at that level.

The lead Technical Authority for the requirement is responsible to oversee the development of a Technical Authority community answer.

NPR 7120.5D Paragraph 3.6.3 states, “The organizations and the organizational levels that agreed to the establishment of a requirement must agree to the change or waiver of that requirement, unless this has been formally delegated elsewhere.”



* The change or waiver would be concurred in by all applicable Technical Authorities

Notes

If the requirement came from a higher level outside NASA (e.g. from a law or a Presidential Directive, relief would be sought from the appropriate external activity after agreement by the Office of the Administrator (or designee).

If the requirement came from an equivalent level outside NASA (e.g. from Memorandum of Agreement with another Agency) the NASA office responsible for the MOA would process the change in accordance with the governing agreement.

9. What standard terminology has been adopted by the OCE and OSMA to ensure uniformity in the discussion of requirements management?

Answer

The January 2007 joint meeting of the NASA Engineering Management Board and the OSMA Directors agreed to the following standard terminology for requirements management:

- **Non-conformance** – the state or situation of not fulfilling a requirement
- **Tailoring** - The process of adapting requirements to a specific task or activity (e.g. program or project)
- **Exception** - A written authorization granting permanent relief from a specific, non-applicable requirement.
 - Non-applicable – not relevant or capable of being applied
 - Does not include modifiers like it's too hard, expensive, or time consuming; I don't like it; I missed it, etc.
- **Waiver** - A written authorization allowing relief from a requirement

Note the following are **not** standard terminology for requirements management

- **Deviation**
 - The concepts previously covered by the term deviation are now encompassed by the terms exception and waiver.
 - The term deviation may continue to be used in ongoing programs/projects but is proposed that it should not be used in new programs/projects.
- **Variance** – This term has specific significance in the administration of OSHA requirements and should only be used in relation to OSHA regulations and requirements.

10. How will waivers be handled for non-NASA standards?

Answer

Each non-NASA standards that is adopted would be assigned a NASA lead or responsible party. The lead would be responsible for the waiver and modifications to the document that are necessary to implement the standard in a NASA environment. This responsibility can be formally delegated. Thus, the process would be the same as for other standards.

11. What is some of the information expected from the Programmatic Authority to support timely Technical Authority processing of a request for a change or waiver?

Answer

The request for a change or waiver should include but not be limited to:

- Identification of:
 - The specific requirement(s) that that is being recommended for change or waiver,
 - The origin of the requirement and any parent requirements that are affected by the change or waiver request

This should include explicit statements identifying:

Whether the requirement being changed or waived is traceable to an Agency or Center requirement, and

Whether the resulting change or waiver will be implemented by a Programmatic Authority, a Center or both.

Rationale

These statements will assist in ensuring the appropriate level of Technical Authority is involved in the assessment of the request and will also assist OSMA in their audit planning.

- Why the requirement was established (if known)
 - The level of Programmatic level at which the residual risk associated with the change or waiver is being or will be accepted
- Justification for the proposed change or waiver including:

Why the requirement cannot or should not be met

The technical basis and justification for the proposed alternate requirement, and

An assessment of the residual risk associated with the acceptance of the proposed change or waiver with a plan to mitigate the risk.

- Identification of the lead Technical Authority and Technical Authority's with mandatory concurrence if this info is available from the database.

12. What major delegations of waiver authority have been made by the OCE and OSMA to date?

Answer

Headquarters recognizes the need to delegate waiver authority to a lowest appropriate level and plans to eventually delegate this authority for most of Technical Authority responsible requirements established at the Agency level. The principles to be applied in establishing the level of delegation and the specific requirements for which waiver authority will be reserved at Headquarters are being developed.

Delegation of authority for dispositioning Exceptions is addressed below.

13. Who can disposition a request for an exception to a requirement established by an Agency or Center level Technical Authority?

Answer

An exception can be dispositioned by the lead Technical Authority at the level at which the requirement relief is being sought. (See definitions below.) The normal coordination with other Technical Authorities is understood.

An exception is defined as a written authorization granting permanent relief from a specific, non-applicable¹ requirement. A non-applicable requirement is one that is not relevant or capable of being applied. This definition does not include modifiers like it's too hard, expensive, or time consuming; I don't like it; I missed it, etc.

This definition was adopted as standard terminology by the Chief OSMA and Chief Engineer at the January 2007 Engineering Management Board meeting.

Rationale

The intent of the definitions for “exception” and “non-applicable” was to make the decision over whether a requirement was non-applicable insensitive to who made the determination. Therefore, for efficiency the dispositioning of an exception was delegated to the lowest practical level of Technical Authority.

If a situation arises in which the non-applicability of the requirement is not clear and therefore decision of non-applicability might not be insensitive to the reviewer or the granting of the exception would increase risk, than appropriate Technical Authority consultations should be held to determine whether the request should be processed as a waiver.

This delegation has not been formally make as of 10-13-07

¹ It is inherent in the concept of being non-applicable that the granting of the exception will have no effect on program or project risk.